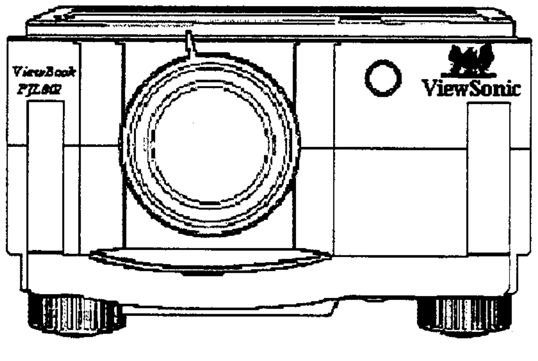
Service Manual

ViewSonic PJL802

Model No. VPRJ21408-1

Color LCD Portable Projector Display


ViewBook
PJL802
ViewSonic

(Rev. 1 - February, 1998)

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Revision History

Revision	Date	Description Of Changes	Approval
1.0	2/9/98	Initial Issue	T. Sears

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

SPECIFICATIONS

ITEM		SPECIFICATION	
LCD panels		0.9" Poly silicon LCD panel X 3, RGB shutter method, using Translucent TN crystal panels	
Drive method		Active Matrix 4 : 3 Aspect Ratio panels, TFT (Thin Film Transistor)	
No. of pixels		1,440,000 stripe pixels (800 X 600 X 3)	
Lens		1 - 1.5 zoom lens, F2.5 - 2.7, f 32 - 48 mm Manual Focus	
Projector lamp		Metal halide 150 W	
Contrast ratio		150 : 1	
Brightness		450 lumen / ANSI	
Unlimited number of colors		16,777,216	
Screen size		20" - 300" (measured diagonally)	
Projection (throw) distance		3.18' - 51.84'	
Keystone Correction		1 : 9 Low position	
Video input signal		PAL/SECAM/NTSC/PAL-M/PAL-N/NTSC4.43 Composite video, 1 Vp-p, sync negative, 75Ω terminated	
S-Video input signal		Y (luminance signal): 1 Vp-p, sync negative, 75Ω terminated C (chrominance signal): burst 0.286 Vp-p, 75Ω terminated	
RGB input signal	Video signal	RGB Analog (0.7 Vp-p, 1.0 Vp-p with sync on green, 75Ω) Unlimited numbers of colors	
	Sync signal	H/V separate, H/V composite, or Sync-on-Green	
	H-Frequency	24.83 - 60.24 kHz (TTL Level)	
	V-Frequency	56.25 - 85.1 Hz (TTL Level)	
Connectors		S-Video Input: Mini DIN 4-pin X 1 PAL/SECAM/NTSC/PAL-M/PAL-N/NTSC4.43 Video Input: RCA pin X 1 Video Audio Input: RCA pin X 2 (L + R) Serial Port (RS-232C): Mini DIN 8-pin X 1 RGB Display Input: D-Sub mini 15-pin X 1 RGB Audio Input: M3 stereo mini pin X 1 RGB Display Output: D-Sub mini 15-pin X 1 Audio Output: M3 stereo mini pin X 1 PC Card Slot: PCMCIA Type Ⅱ X 1	
Controls	Cabinet Buttons/ Switches	Main Power ON/OFF, Power ON/OFF, Volume +/–, Mode, Menu, Input, ∧, ∨, <, >, Release	
	Remote Control Buttons	Power ON/OFF, Freeze, Shutter, Mute, Volume +/–, Mode, Menu, Input, ∧, ∨, <, >, Light, Pointer, Mouse, Click1, Click2	
Audio output		1.5 W (10% THD)	
Speaker		2.76" X 1.58" X 1 (70mm X 40mm X 1)	
Operating Temperature		41°F to 104°F (5°C to 40°C)	
Operating Humidity		10% - 80% (non-condensation)	
Storage Temperature		-13°F to 104°F (-25°C to 40°C)	104°F to 140°F (40°C to 60°C)
Storage Humidity		5% - 85% (non-condensing)	Normal humidity
Power Supply		100 - 240 V AC (50 or 60 Hz) Automatic	
Power Consumption		250 W	
Dimensions W X H X D		9 - 7/16" X 5 - 15/16" X 12-13/16" (240 X 151 X 325 mm)	
Amps		2.5 A - 1.1A	
Weight		12.1 lbs. (5.5 kg)	
Approvals		FCC, UL, C-UL, CE	

Note: Specifications and design subject to change without notice.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

Caution: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance and prevent undesirable interference, use only the provided shielded VGA cable with 2 ferrite cores while connecting LCD to computer and all other connecting cables should be shielded. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC Plug before disassembling this unit.
3. It is advisable to use an isolation transformer in the AC supply before servicing.
4. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
5. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers, shield, and isolation R-C combinations etc. are properly installed.
6. After servicing, be sure to restore the wires, leads, insulation barriers, shields, etc.
7. After servicing, make the leakage current checks to prevent the customer from being exposed to shock hazards.

Caution: Use a separate Isolation Transformer for this unit when servicing.

LEAKAGE CURRENT CHECK

1. Connect AC Plug to 120 volt or 240 volt AC outlet. Do not use the ground prong of AC Plug. (See Fig. 1)

   Do not use a isolation transformer for this check.

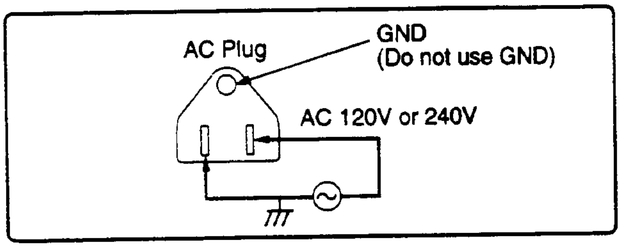


Fig. 1

2. Connect a 1.5K ohms, 10 watts resistor, in parallel with a 0.15 µF capacitor, between each exposed metallic part on the set and a good earth ground. (See Fig. 2)

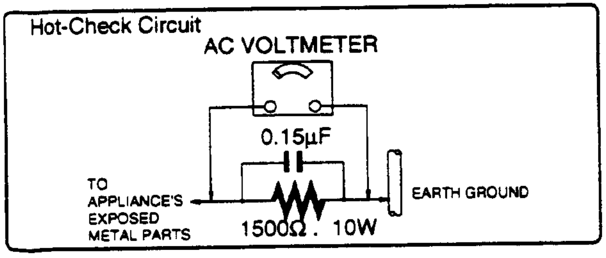


Fig. 2

3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 1.125 volt RMS. A leakage current tester (Simpson Model 229 equivalent) may be used to make the hot checks, leakage current must not exceed 0.75 milliamp. In case a measurement is outside of the limits specified, there is a possibility of shock hazard, and the LCD Projector should be repaired and rechecked before it is returned to the customer.

UV-PRECAUTION AND HIGH PRESSURE LAMP PRECAUTION

1. Be sure to disconnect the AC Plug when replacing the lamp.
2. Since the lamp reaches a very high temperature during its operation, wait until it has completely cooled off when replacing the Lamp Unit.
3. The lamp emits small amounts of UV-Radiation, avoid direct-eye contact.
4. The high pressure lamp involves a risk of explosion. Therefore, do not touch the Lamp Bulb when servicing. (See Fig. 3)

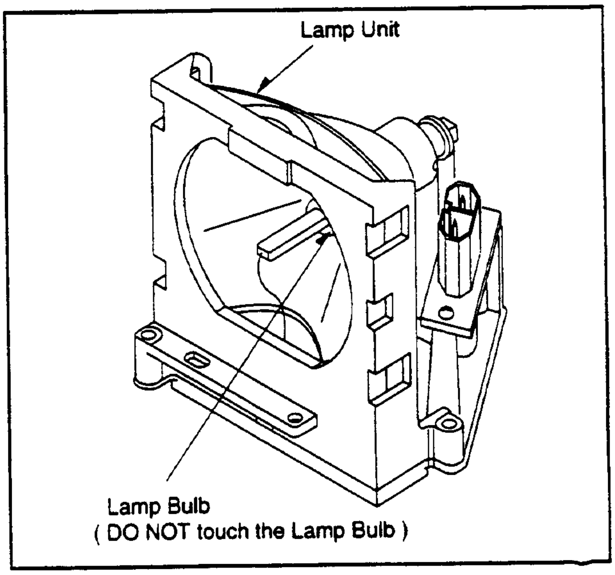


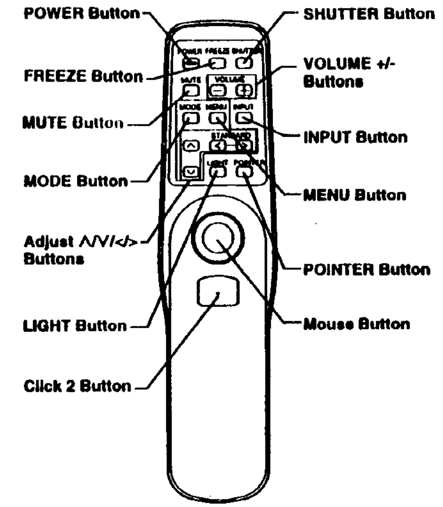
Fig. 3

OPERATION GUIDE

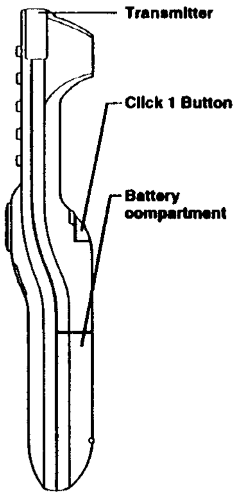
Product Information

Remote Control

[Front]

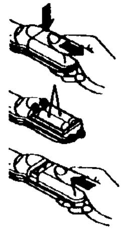

POWER Button
FREEZE Button
MUTE Button
MODE Button
Adjust Λ/V/<|/|> Buttons
LIGHT Button
Click 2 Button
SHUTTER Button
VOLUME +/- Buttons
INPUT Button
MENU Button
POINTER Button
Mouse Button

[Side]


Transmitter
Click 1 Button
Battery compartment

■ Before using the Remote Control

• Load the 2 "AA" batteries in the Remote Control



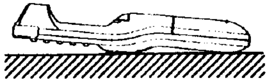
1 Slide the lid in the direction of the arrow.

2 Install 2 "AA" batteries as indicated inside the Battery Compartment.

3 Replace the lid and snap into place.

Battery replacement caution
- Do not mix old and new batteries.
  (Also never mix alkaline with manganese batteries.)

Note:
- Do not place the remote control unit upside down, otherwise the Mouse button may be pressed down, which cause the batteries to be consumed.



• Remote Control Operating Range

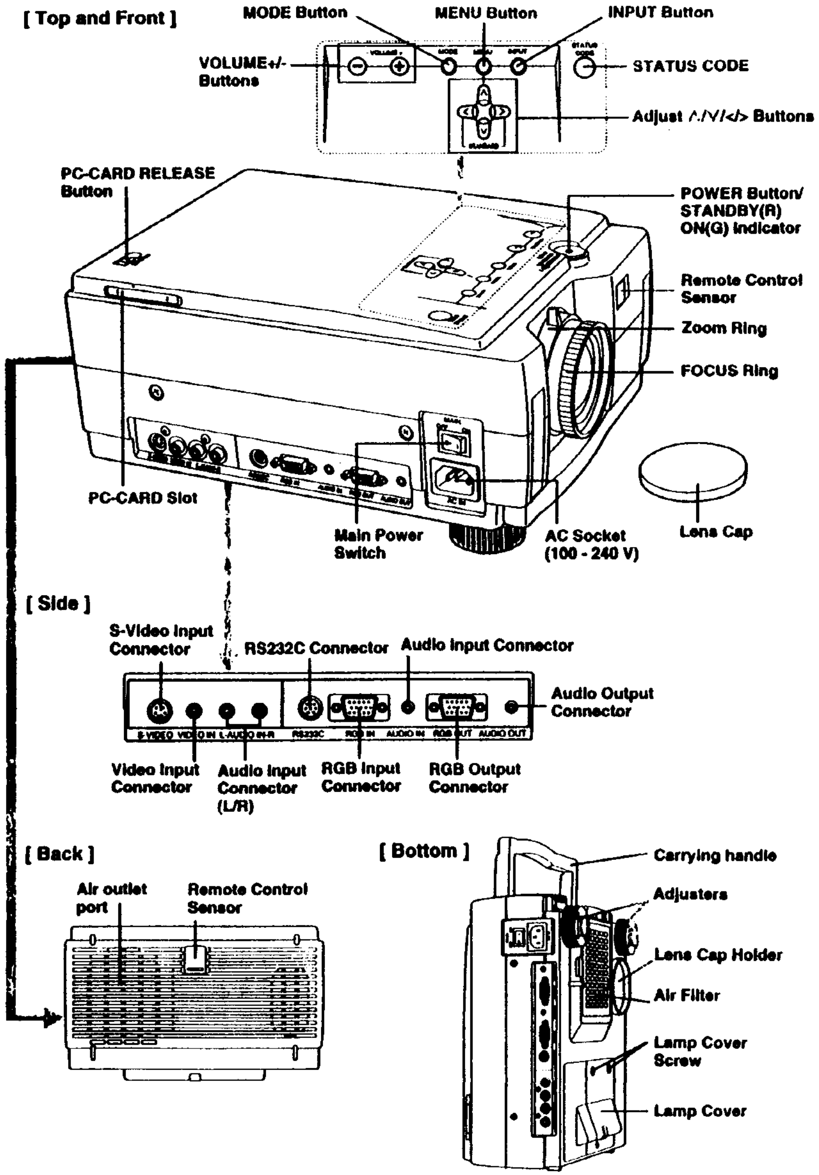
When using the remote control, point it at the front or rear of the LCD Projector or at the projection screen. The range for optimum operation is within 30 degrees of the receiver at a maximum distance of about 23 feet (7m).

• Remote Control Light Up

Press the LIGHT button to illuminate the function buttons on the remote control for 10 seconds. The light goes out while any button is pressed down, and then comes back on for an additional 10 seconds when the button is released.

LCD Projector

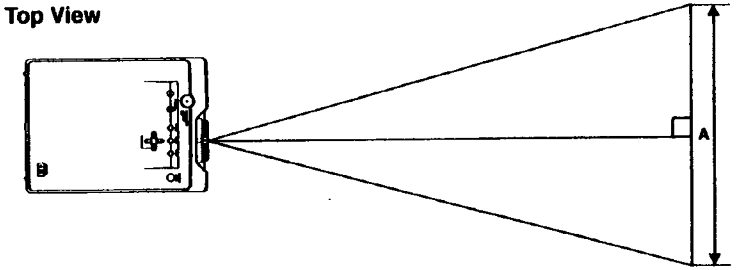
[Top and Front]


MODE Button
MENU Button
INPUT Button
VOLUME+/- Buttons
STATUS CODE
Adjust Λ/V/<|/|> Buttons
PC-CARD RELEASE Button
POWER Button/ STANDBY(R) ON(G) Indicator
Remote Control Sensor
Zoom Ring
FOCUS Ring
PC-CARD Slot
Main Power Switch
AC Socket (100 - 240 V)
Lens Cap
[Side]
S-Video Input Connector
RS232C Connector
Audio Input Connector
Audio Output Connector
Video Input Connector
Audio Input Connector (L/R)
RGB Input Connector
RGB Output Connector
S-VIDEO
VIDEO IN
L-AUDIO IN-R
RS232C
RGB IN
AUDIO IN
RGB OUT
AUDIO OUT
[Back]
Air outlet port
Remote Control Sensor
[Bottom]
Carrying handle
Adjusters
Lens Cap Holder
Air Filter
Lamp Cover Screw
Lamp Cover

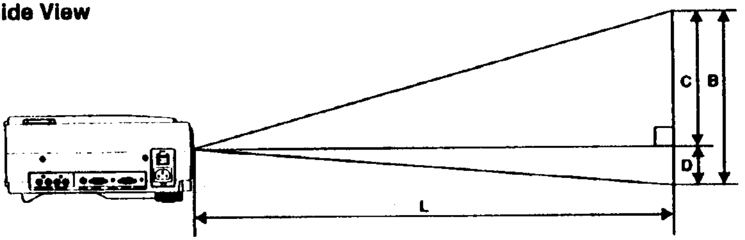
Positioning the LCD Projector and Screen

The screen should be positioned so that it is not directly touched by sunlight or room light as this will wash out the colors of the picture making it hard to see. When possible, close all blinds, curtains, etc. and dim the lights. Also, the LCD Projector should be at a 90° angle to the screen for the best picture results. To determine the distance for the desired size, please refer to the LCD Projector/Screen Relationship Chart below.

■ Top View



■ Side View



- Your LCD Projector is equipped with an image reverse feature. So, in addition to front projection, you can also reverse the image for rear projection.

LCD Projector /Screen Relative Position Chart

The picture can be adjusted to the desired size within the range of the zoom lens.
(This chart is based on SVGA input signal. Screen sizes will be smaller when VGA signal is used.)

Screen size	Throw distance (L)	Measure (A)	Measure (B)	Measure (C)	Measure (D)
20 inches	3.18 ft (0.97 m)	1.35 ft (0.41 m)	0.98 ft (0.30 m)	0.89 ft (0.27 m)	1.18 in. (3 cm)
40 inches	4.59 – 6.56 ft (1.4 – 2.0 m)	2.66 ft (0.81 m)	2.00 ft (0.61 m)	1.80 ft (0.55 m)	2.36 in. (6 cm)
60 inches	6.89 – 10.17 ft (2.1 – 3.1 m)	3.94 ft (1.2 m)	2.99 ft (0.91 m)	2.69 ft (0.82 m)	3.54 in. (9 cm)
72 inches	8.20 – 12.14 ft (2.5 – 3.7 m)	4.92 ft (1.5 m)	3.61 ft (1.1 m)	3.25 ft (0.99 m)	4.33 in. (11 cm)
80 inches	9.19 – 13.45 ft (2.8 – 4.1 m)	5.25 ft (1.6 m)	3.94 ft (1.2 m)	3.54 ft (1.08 m)	4.72 in. (12 cm)
100 inches	11.48 – 17.06 ft (3.5 – 5.2 m)	6.56 ft (2.0 m)	4.92 ft (1.5 m)	4.43 ft (1.35 m)	5.91 in. (15 cm)
120 inches	13.78 – 20.67 ft (4.2 – 6.3 m)	7.87 ft (2.4 m)	5.91 ft (1.8 m)	6.79 ft (2.07 m)	7.09 in. (18 cm)
150 inches	17.39 – 25.92 ft (5.3 – 7.9 m)	9.84 ft (3.0 m)	7.55 ft (2.3 m)	5.31 ft (1.62 m)	9.06 in. (23 cm)
200 inches	23.29 – 34.78 ft (7.1 – 10.6 m)	13.45 ft (4.1 m)	9.84 ft (3.0 m)	8.86 ft (2.7 m)	11.81 in. (30 cm)
250 inches	29.20 – 43.31 ft (8.9 – 13.2 m)	16.73 ft (5.1 m)	12.47 ft (3.8 m)	11.22 ft (3.42 m)	14.96 in. (38 cm)
300 inches	35.43 – 51.84 ft (10.8 – 15.8 m)	20.01 ft (6.1 m)	15.09 ft (4.6 m)	13.58 ft (4.14 m)	18.11 in. (46 cm)

- If the LCD Projector and the screen are not properly placed, the picture will be distorted producing a keystoned image as shown at right.

Keystoned Image

Caution: When you set up the LCD Projector

- Do not place it in humid or dusty places, or places where the air is sooty or full of cigarette smoke. If the lens, mirror, or other optical components become dirty, the picture will blur or darken, making viewing difficult.
- Do not expose to extreme heat or cold. Operating temperature: 5°C – 40°C (41°F – 104°F)

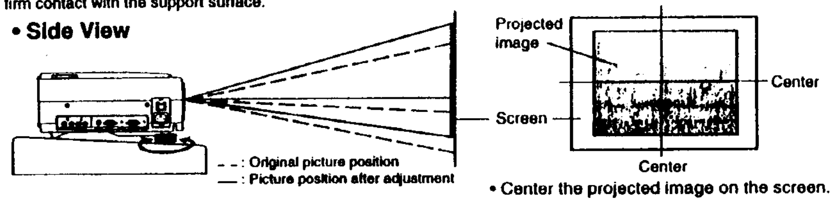
LCD Projector Initial Setup

Place the LCD Projector on a stable, flat surface according to the LCD Projector/Screen Relative Position Chart.

■ Positioning the LCD Projector

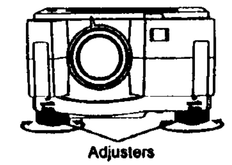
CAUTION: depending on the relative position of the LCD Projector and the screen, improper adjustments may cause picture distortion. To prevent the LCD Projector from wobbling, make sure both adjusters (see below) are in firm contact with the support surface.

• Side View


- - : Original picture position
— : Picture position after adjustment
Projected image
Screen
Center
Center

- Center the projected image on the screen.

• Front View



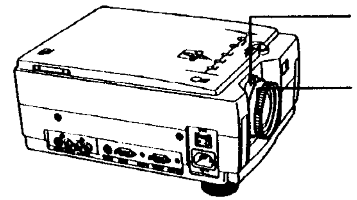
To Raise: Turn adjusters to the right.
To Lower: Turn adjusters to the left.

Note:

- For a distortion-free picture, it is very important that the LCD Projector be positioned so that it is perfectly horizontal. If necessary turn the adjusters in either direction to make fine adjustments.

■ Adjusting the lens

If the LCD Projector is not set up so that it is horizontal, it will not be possible to obtain a distortion-free picture. Turn the adjusters in either direction to make fine adjustments to the level of the projector so that the projector is perfectly horizontal.



Use the ZOOM Ring to adjust the size of the picture.
For a larger picture, turn the ring to the right.
For a smaller picture, turn the ring to the left.

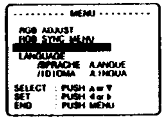
Use the FOCUS Ring to adjust the focus of the picture.
Turn the ring to the right or left until the picture is at the optimum focus.

■ Rear Screen Mode Projection

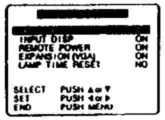
The image can be flipped to a mirror image of the input video signal for rear screen projection.

The procedure and on-screen displays shown below are based on RGB as the input signal.

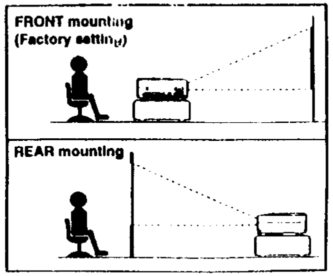
1. **Press MENU** to display the menu.
2. **Press Λ or V** to select SET UP PROJECTOR, **and then < or >** to display the screen.
3. **Press Λ or V** to select FRONT/REAR, **and then < or >** to select FRONT or REAR.
   - Select FRONT to return to the standard projection format.
   - Select REAR to flip to a mirror image of the input signal.
4. **Press MENU twice** to exit.



MENU
RGB ADJUST
RGB SYNC MENU
LANGUAGE
SPRACHE LANGUE
/IDIOMA LINGUA
SELECT : PUSH ▲ or ▼
SET : PUSH ◀ or ▶
END : PUSH MENU



INPUT DISP ON
REMOTE POWER ON
EXPANSION (VGA) ON
LAMP TIME RESET NO
SELECT PUSH ▲ or ▼
SET PUSH ◀ or ▶
END PUSH MENU



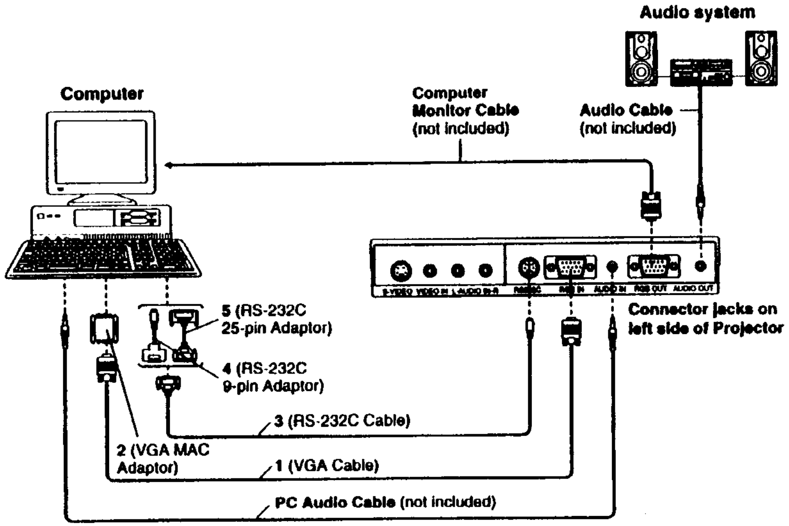
Connecting the LCD Projector

Before you begin...

- Turn off the power supply of each system component before connecting any of the components.
- If the necessary cables for connecting any of the system components are not supplied with the component or available as an optional accessory, you may need to construct them yourself.

■ Connecting to a computer (RGB signal)

Diagram numbers correspond with numbers.


Audio system
Computer
Computer Monitor Cable (not included)
Audio Cable (not included)
5 (RS-232C 25-pin Adaptor)
4 (RS-232C 9-pin Adaptor)
Connector jacks on left side of Projector
3 (RS-232C Cable)
2 (VGA MAC Adaptor)
1 (VGA Cable)
PC Audio Cable (not included)

Note:

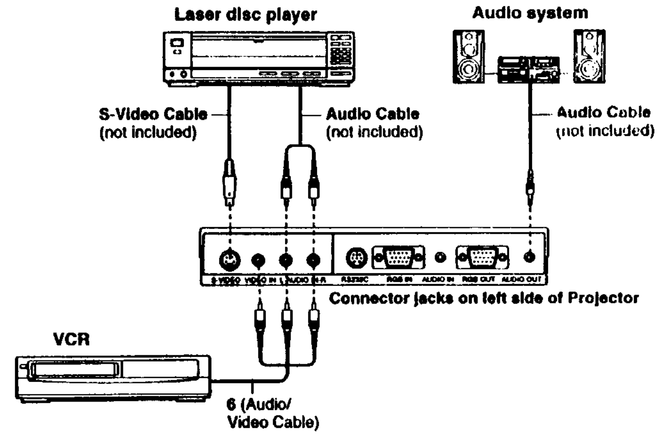
- The RGB input accepts signals from VGA, SVGA, XGA (Compression), and MAC compatible computers without the need for any additional hardware.
- Plug the VGA signal cable (supplied) correctly into the RGB IN terminal on the LCD Projector and the RGB signal Output terminal on your computer. Secure the plugs by tightening the thumb screws.

  When connecting the LCD Projector to a Macintosh Series computer, first connect the VGA/MAC adaptor (supplied) to the RGB-signal input terminal on your computer. Then, firmly plug the VGA signal cable into both the RGB IN terminal on the LCD Projector and the VGA/MAC adaptor on the computer. Secure the plugs by tightening the thumb screws.
- To view images simultaneously on the monitor and projection screen, connect your computer monitor to the LCD Projector's RGB OUT terminal.
- When the LCD Projector is connected to external devices (ex. personal computer, etc.) you can use the remote control in place of the computer's mouse by attaching the RS-232C connector cable.
- Plug the RS-232C Cable (supplied) correctly into the RS-232C terminal on the LCD Projector and the RS-232C Output terminal on the computer. Secure the plugs by tightening the thumb screws.

  When connecting to a Macintosh series computer, use the RS-232C 9-pin adaptor (supplied). Or, when connecting to an IBM-PC series computer, use the RS-232C 25-pin adaptor (supplied). Connect one of these RS-232C adaptor to the RS-232C input terminal on your computer. Then, firmly plug the RS-232C cable into both the RS-232C terminal on the LCD Projector and the RS-232C adaptor on the computer. Secure the plugs by tightening the screws.
- When connecting the LCD Projector to a compatible computer other than a VGA, SVGA, XGA (Compression), or Macintosh series, a separate cable is needed.
- If you wish to use the plug & play function, turn on the MAIN power switch on the LCD Projector before turning on the computer.

■ Connecting to audio/video output equipment (S-Video/Video signal)

Diagram numbers correspond with numbers.


Laser disc player
Audio system
S-Video Cable (not included)
Audio Cable (not included)
Audio Cable (not included)
Connector jacks on left side of Projector
VCR
6 (Audio/ Video Cable)

Note:

- If the S-VIDEO IN and VIDEO IN terminals are both connected, the S-VIDEO IN signal input will have priority. To view the signal being input to the VIDEO IN terminal, disconnect the plug from the S-VIDEO IN terminal.
- If the video signal source is connected using a cable with a BNC junction plug, use the BNC/RCA adaptor (not included) to convert the pin jack.

Video/ Computer Cables & Adaptors

These accessories are supplied in order to connect the LCD Projector to Computer/ AV equipment. The numbers in the left column correspond with the numbers in the connection diagrams.

No.	CABLE/ADAPTOR	PORT		LENGTH
		Projector side	Computer/AV products side	
1	VGA Cable	D-Sub mini 15-pin (male)	D-Sub mini 15-pin (male)	6.56 ft (2.0 m)
2	VGA MAC Adaptor	D-sub mini 15-pin (female)	MAC D-Sub 15-pin (male)	—
3	RS-232C Cable	Mini DIN 8-pin (male)	D-Sub 9-pin (female)	6.56 ft (2.0 m)
4	RS-232C 9-pin Adaptor	D-Sub 9-pin (male)	Mini DIN 8-pin (male)	—
5	RS-232C 25-pin Adaptor	D-Sub 9-pin (male)	D-Sub 25-pin (female)	—
6	Audio/Video Cable	RCA pin (male) X 3	RCA pin (male) X 3	4.92 ft (1.5 m)

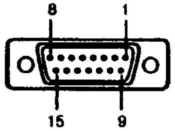
Pin Assignment

Follow the instructions below when connecting to a computer. Refer to list of cables and adaptors.

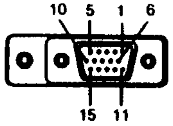
A. Signal connector: D-sub mini 15-pin (PC/AT compatible model) Connect the signal cable to the D-sub mini 15-pin connector on the LCD Projector unit.

B. Signal connector: D-sub 15-pin (MAC)
To convert a MAC D-sub 15-pin connector to a D-sub mini 15-pin connector, connect a VGA-MAC adaptor (included) to the D-sub 15-pin connector and then to the D-sub mini 15-pin connector on the LCD Projector.
Be sure to set the DIP switches on the VGA-MAC adaptor to your display type.

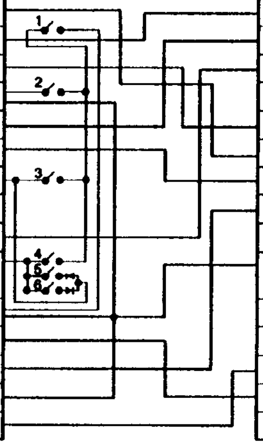
MAC



VGA



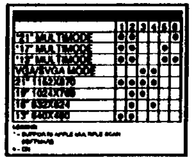
Pin No.	Signal
1	Ground for red video signal
2	Red video signal
3	Composite sync
4	ID1
5	Green video signal
6	Ground for green video signal
7	ID2
8	Unused
9	Blue video signal
10	ID3
11	Ground
12	Vertical synchronizing signal
13	Ground for blue video signal
14	Ground
15	Horizontal synchronizing signal



Pin No.	Signal
1	Red video signal
2	Green video signal
3	Blue video signal
4	Unused
5	Unused (Through out)
6	Ground for red video signal
7	Ground for green video signal
8	Ground for blue video signal
9	Unused
10	Ground
11	Unused
12	Unused
13	Horizontal synchronizing signal
14	Vertical synchronizing signal
15	Unused

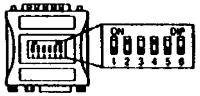
Note:
- When using a Composite Sync Output type Macintosh, please use a Composite Sync type VGA MAC Adaptor (pin 3 and pin 13 are connected).

[Setting the DIP Switches]



	1	2	3	4	5	6
*21" MULTIMODE	●	●				●
*17" MULTIMODE	●	●			●	
*1[illegible] MULTIMODE	●	●			●	●
VGA/SVGA MODE			●	●		
21" 1152X870	●	●	●	●		
19" 1024X768		●	●			
16" 832X624		●		●		
13" 640X480	●	●				

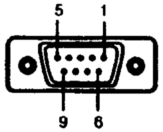
Find the resolution of your display type on the table shown left (also on the adaptor). Then, set each DIP switch that is indicated by a "●" mark to ON.

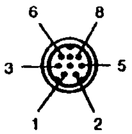


Example: If your display type is 16", set DIP switches 2 and 4 on the VGA-MAC adaptor to ON. By doing so, the signal will travel through switches 2 and 4, and Pin No. 4 to 10 as shown in the signal chart above.

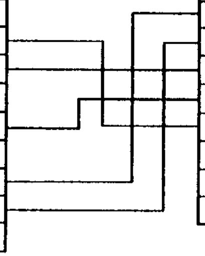
C. RS-232C Connector: D-sub 9-pin Connect the RS-232C Cable to the mini DIN 8-pin connector on the LCD Projector unit.

D. RS-232C Connector: Mini DIN 8-pin
To convert a D-sub 9-pin connector to a mini DIN 8-pin connector, use a RS-232C 9-pin adaptor (included).
Connect the D-sub 9-pin adaptor and RS-232C cable. Then, connect it to the mini DIN 8-pin connector on the LCD Projector unit.



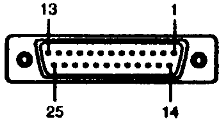


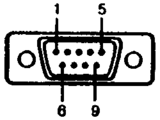
Pin No.	Signal
1	Unused
2	Received data
3	Transmitted data
4	Unused
5	Ground
6	Unused
7	Unused (Request to send)
8	Unused (Clear to send)
9	Unused



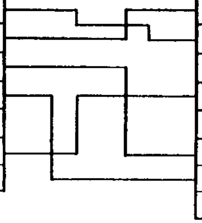
Pin No.	Signal
1	Unused (Request to send)
2	Unused (Clear to send)
3	Transmitted data
4	Ground
5	Received data
6	Unused
7	Unused
8	Unused

E. RS-232C connector: D-sub 25-pin
To convert a D-sub 25-pin connector to a D-sub 9-pin connector, use a RS-232C 25-pin adaptor (included).
Connect the D-sub 25-pin adaptor and RS-232C cable. And then connect it to the D-sub 9-pin connector on the LCD Projector unit.





Pin No.	Signal
1	Unused
2	Transmitted data
3	Received data
4	Unused (Request to send)
5	Unused (Clear to send)
6	Unused
7	Ground
8-25	Open



Pin No.	Signal
1	Unused
2	Received data
3	Transmitted data
4	Unused
5	Ground
6	Unused
7	Unused (Request to send)
8	Unused (Clear to send)
9	Unused

Factory Preset Timing

		Preset timing		
		IBM 640 X 350 at 70 Hz	IBM 640 X 400 at 70 Hz	IBM 640 X 480 at 60 Hz
DOT CLOCK		25.1745 MHz	25.1745 MHz	25.1745 MHz
HORIZ	f H	31.4681 KHz	31.4681 KHz	31.4681 KHz
	A - PERIOD	31.778 µs (800 dots)	31.778 µs (800 dots)	31.778 µs (800 dots)
	B - BLANKING	6.356 µs (160 dots)	6.356 µs (160 dots)	6.356 µs (160 dots)
	C - SYNC WIDTH	3.813 µs (96 dots)	3.813 µs (96 dots)	3.813 µs (96 dots)
	D - BACK PORCH	1.907 µs (48 dots)	1.907 µs (48 dots)	1.907 µs (48 dots)
	E - ACTIVE TIME	25.423 µs (640 dots)	25.423 µs (640 dots)	25.423 µs (640 dots)
	F - FRONT PORCH	0.636 µs (16 dots)	0.636 µs (16 dots)	0.636 µs (16 dots)
VERT	f V	70.0849 Hz	70.0849 Hz	59.939 Hz
	A - PERIOD	14.268 ms (449 lines)	14.268 ms (449 lines)	16.684 ms (525 lines)
	B - BLANKING	3.146 ms (99 lines)	1.557 ms (49 lines)	1.430 ms (45 lines)
	C - SYNC WIDTH	0.064 ms (2 lines)	0.064 ms (2 lines)	0.064 ms (2 lines)
	D - BACK PORCH	1.907 ms (60 lines)	1.112 ms (35 lines)	1.049 ms (33 lines)
	E - ACTIVE TIME	11.122 ms (350 lines)	12.711 ms (400 lines)	15.254 ms (480 lines)
	F - FRONT PORCH	1.176 ms (37 lines)	0.381 ms (12 lines)	0.318 ms (10 lines)
SYNC POLARITY (H/V)		Positive / Negative	Negative / Positive	Negative / Negative

		Reservation timing	Preset timing	
		MAC LC 640 X 480	MAC II 640 X 480	VESA 640 X 350 at 85 Hz
DOT CLOCK		31.334 MHz	30.2410 MHz	31.5 MHz
HORIZ	f H	34.97 KHz	35.0012 KHz	37.861 KHz
	A - PERIOD	28.598 µs (896 dots)	28.570 µs (864 dots)	26.413 µs (832 dots)
	B - BLANKING	8.171 µs (256 dots)	7.407 µs (224 dots)	6.095 µs (192 dots)
	C - SYNC WIDTH	2.043 µs (64 dots)	2.803 µs (63 dots)	2.032 µs (64 dots)
	D - BACK PORCH	2.426 µs (76 dots)	3.241 µs (98 dots)	3.048 µs (96 dots)
	E - ACTIVE TIME	20.425 µs (640 dots)	21.163 µs (640 dots)	20.317 µs (640 dots)
	F - FRONT PORCH	3.702 µs (116 dots)	2.083 µs (63 dots)	1.016 µs (32 dots)
VERT	f V	66.61 Hz	66.6689 Hz	85.080 Hz
	A - PERIOD	15.013 ms (525 lines)	15.000 ms (525 lines)	11.754 ms (445 lines)
	B - BLANKING	1.287 ms (45 lines)	1.286 ms (45 lines)	2.509 ms (95 lines)
	C - SYNC WIDTH	0.086 ms (3 lines)	0.086 ms (3 lines)	0.079 ms (3 lines)
	D - BACK PORCH	1.115 ms (39 lines)	1.114 ms (39 lines)	1.585 ms (60 lines)
	E - ACTIVE TIME	13.726 ms (480 lines)	13.714 ms (480 lines)	9.244 ms (350 lines)
	F - FRONT PORCH	0.886 ms (3 lines)	0.086 ms (3 lines)	0.845 ms (32 lines)
SYNC POLARITY (H/V)		Negative / Negative	Sync on Green or Composit	Positive / Negative

		Preset timing		
		VESA 640 X 400 at 85 Hz	VESA 640 X 480 at 72 Hz	VESA 640 X 480 at 75 Hz
DOT CLOCK		31.5 MHz	31.5 MHz	31.5 MHz
HORIZ	f H	37.861 KHz	37.861 KHz	37.500 KHz
	A - PERIOD	26.413 µs (832 dots)	26.413 µs (832 dots)	26.667 µs (840 dots)
	B - BLANKING	6.095 µs (192 dots)	6.095 µs (192 dots)	6.349 µs (200 dots)
	C - SYNC WIDTH	2.032 µs (64 dots)	1.270 µs (40 dots)	2.032 µs (64 dots)
	D - BACK PORCH	3.048 µs (96 dots)	4.063 µs (128 dots)	3.810 µs (120 dots)
	E - ACTIVE TIME	20.317 µs (640 dots)	20.317 µs (640 dots)	20.317 µs (640 dots)
	F - FRONT PORCH	1.016 µs (32 dots)	0.762 µs (24 dots)	0.508 µs (16 dots)
VERT	f V	85.080 Hz	72.8088 Hz	75.0000 Hz
	A - PERIOD	11.754 ms (445 lines)	13.735 ms (520 lines)	13.333 ms (500 lines)
	B - BLANKING	1.189 ms (45 lines)	1.057 ms (40 lines)	0.533 ms (20 lines)
	C - SYNC WIDTH	0.079 ms (3 lines)	0.079 ms (3 lines)	0.080 ms (3 lines)
	D - BACK PORCH	1.083 ms (41 lines)	0.740 ms (28 lines)	0.427 ms (16 lines)
	E - ACTIVE TIME	10.565 ms (400 lines)	12.678 ms (480 lines)	12.800 ms (480 lines)
	F - FRONT PORCH	0.026 ms (1 line)	0.236 ms (9 lines)	0.027 ms (1 line)
SYNC POLARITY (H/V)		Negative / Positive	Negative / Negative	Negative / Negative

		Preset timing		
		VESA 640 X 480 at 85Hz	VESA 800 X 600 at 56Hz	VESA 800 X 600 at 60Hz
DOT CLOCK		36.000 MHz	36.000 MHz	40.000 MHz
HORIZ	f H	43.269 KHz	35.156 KHz	37.879 KHz
	A - PERIOD	23.111 µs (832 dots)	28.444 µs (1024 dots)	26.400 µs (1056 dots)
	B - BLANKING	5.333 µs (192 dots)	6.222 µs (224 dots)	6.400 µs (256 dots)
	C - SYNC WIDTH	1.333 µs (48 dots)	2.000 µs (72 dots)	3.200 µs (128 dots)
	D - BACK PORCH	3.111 µs (112 dots)	3.556 µs (128 dots)	2.200 µs (88 dots)
	E - ACTIVE TIME	17.778 µs (640 dots)	22.222 µs (800 dots)	20.000 µs (800 dots)
	F - FRONT PORCH	0.889 µs (32 dots)	0.667 µs (24 dots)	1.000 µs (40 dots)
VERT	f V	85.008 Hz	56.250 Hz	60.317 Hz
	A - PERIOD	11.764 ms (509 lines)	17.778 ms (625 lines)	16.579 ms (628 lines)
	B - BLANKING	0.670 ms (29 lines)	0.711 ms (25 lines)	0.739 ms (28 lines)
	C - SYNC WIDTH	0.069 ms (3 lines)	0.057 ms (2 lines)	0.106 ms (4 lines)
	D - BACK PORCH	0.578 ms (25 lines)	0.626 ms (22 lines)	0.607 ms (23 lines)
	E - ACTIVE TIME	11.093 ms (480 lines)	17.067 ms (600 lines)	15.840 ms (600 lines)
	F - FRONT PORCH	0.023 ms (1 line)	0.028 ms (1 line)	0.026 ms (1 line)
SYNC POLARITY (H/V)		Negative / Negative	Positive / Positive	Positive / Positive

		Preset timing		
		VESA 800 X 600 at 72Hz	VESA 800 X 600 at 75Hz	VESA 800 X 600 at 85Hz
DOT CLOCK		50.000 MHz	49.500 MHz	56.250 MHz
HORIZ	f H	48.077 KHz	46.875 KHz	53.674 KHz
	A - PERIOD	20.800 µs (1040 dots)	21.333 µs (1056 dots)	18.631 µs (1048 dots)
	B - BLANKING	4.800 µs (240 dots)	5.172 µs (256 dots)	4.409 µs (248 dots)
	C - SYNC WIDTH	2.400 µs (120 dots)	1.616 µs (80 dots)	1.138 µs (64 dots)
	D - BACK PORCH	1.280 µs (64 dots)	3.232 µs (160 dots)	2.702 µs (152 dots)
	E - ACTIVE TIME	16.000 µs (800 dots)	16.162 µs (800 dots)	14.222 µs (800 dots)
	F - FRONT PORCH	1.120 µs (56 dots)	0.323 µs (16 dots)	0.569 µs (32 dots)
VERT	f V	72.188 Hz	75.000 Hz	85.061 Hz
	A - PERIOD	13.853 ms (666 lines)	13.333 ms (625 lines)	11.756 ms (631 lines)
	B - BLANKING	1.373 ms (66 lines)	0.533 ms (25 lines)	0.578 ms (31 lines)
	C - SYNC WIDTH	0.125 ms (6 lines)	0.064 ms (3 lines)	0.056 ms (3 lines)
	D - BACK PORCH	0.478 ms (23 lines)	0.448 ms (21 lines)	0.503 ms (27 lines)
	E - ACTIVE TIME	12.480 ms (600 lines)	12.800 ms (600 lines)	11.179 ms (600 lines)
	F - FRONT PORCH	0.770 ms (37 lines)	0.021 ms (1 line)	0.019 ms (1 line)
SYNC POLARITY (H/V)		Positive / Positive	Positive / Positive	Positive / Positive

		Preset timing (* Compression)		
		VESA 1024 X 768 at 60Hz	VESA 1024 X 768 at 70Hz	VESA 1024 X 768 at 75Hz
DOT CLOCK		65.000 MHz	75.000 MHz	78.7500 MHz
HORIZ	f H	48.363 KHz	56.476 KHz	60.0229 KHz
	A - PERIOD	20.677 µs (1344 dots)	17.707 µs (1328 dots)	16.660 µs (1312 dots)
	B - BLANKING	4.923 µs (320 dots)	4.054 µs (304 dots)	3.657 µs (288 dots)
	C - SYNC WIDTH	2.092 µs (136 dots)	1.813 µs (136 dots)	1.219 µs (96 dots)
	D - BACK PORCH	2.462 µs (160 dots)	1.920 µs (144 dots)	2.235 µs (176 dots)
	E - ACTIVE TIME	15.754 µs (1024 dots)	13.653 µs (1024 dots)	13.003 µs (1024 dots)
	F - FRONT PORCH	0.369 µs (24 dots)	0.320 µs (24 dots)	0.203 µs (16 dots)
VERT	f V	60.004 Hz	70.069 Hz	75.0286 Hz
	A - PERIOD	16.666 ms (806 lines)	14.272 ms (806 lines)	13.328 ms (800 lines)
	B - BLANKING	0.786 ms (38 lines)	0.673 ms (38 lines)	0.533 ms (32 lines)
	C - SYNC WIDTH	0.124 ms (6 lines)	0.106 ms (6 lines)	0.050 ms (3 lines)
	D - BACK PORCH	0.600 ms (29 lines)	0.513 ms (29 lines)	0.466 ms (28 lines)
	E - ACTIVE TIME	15.880 ms (768 lines)	13.599 ms (768 lines)	12.795 ms (768 lines)
	F - FRONT PORCH	0.062 ms (3 lines)	0.053 ms (3 lines)	0.017 ms (1 line)
SYNC POLARITY (H/V)		Positive / Positive	Positive / Positive	Positive / Positive

***Note**: Because some lines are omitted, picture degradation may occur.

		Preset timing (* Compression)	
		MAC 16" 832 X 624	MAC 19" 1024 X 768
		57.283 MHz	80.0000 MHz
	fH	49.725 KHz	60.2410 KHz
H	A - PERIOD	20.111 µs (1152 dots)	16.600 µs (1328 dots)
O	B - BLANKING	5.587 µs (320 dots)	3.800 µs (304 dots)
R	C - SYNC WIDTH	1.117 µs (64 dots)	1.200 µs (96 dots)
I	D - BACK PORCH	3.910 µs (244 dots)	2.200 µs (176 dots)
Z	E - ACTIVE TIME	14.524 µs (832 dots)	12.800 µs (1024 dots)
	F - FRONT PORCH	0.559 µs (32 dots)	0.400 µs (4 dots)
	fV	74.550 Hz	74.9266 Hz
	A - PERIOD	13.414 ms (667 lines)	13.346 ms (804 lines)
V	B - BLANKING	0.865 ms (43 lines)	0.597 ms (36 lines)
E	C - SYNC WIDTH	0.060 ms (3 lines)	0.050 ms (3 lines)
R	D - BACK PORCH	0.784 ms (39 lines)	0.498 ms (30 lines)
T	E - ACTIVE TIME	12.549 ms (624 lines)	12.749 ms (768 lines)
	F - FRONT PORCH	0.020 ms (1 line)	0.050 ms (3 lines)
SYNC POLARITY (H/V)		Negative/Negative	....

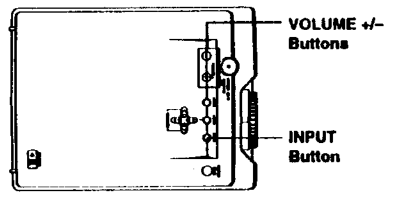
*Note: Because some lines are omitted, picture degradation may occur.

Basic LCD Projector Operation

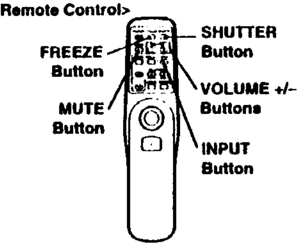
Before you begin, make sure...

- You have read Important Safeguards.
- All connections are made.
- LCD Projector is positioned properly.
- LCD Projector is plugged in.
- Lens cap is removed.

<LCD Projector>



<Remote Control>



1 Turn on the Power.

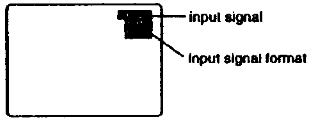
2 Press INPUT on the LCD Projector or remote control to select the desired input signal.

- Continue to press INPUT to set the desired input signal. Each press will change the display as shown below.

→ RGB → PC-CARD → S-VIDEO or VIDEO ↩

- If unit is connected with both S-VIDEO and VIDEO cables, the S-VIDEO signal has priority.
- You may turn the input signal display off.

[When you select S-VIDEO or VIDEO input signal.]



Note:

- When S-VIDEO or VIDEO input signal is selected, the name of the signal format will be displayed directly below the input signal in the on screen display.

3 Turn on your computer (RGB) or start video playback (S-Video or Video).

- Adjust FOCUS and ZOOM Rings if necessary.

4 Press VOLUME +/- on the LCD Projector or remote control to adjust the volume level of the built-in speaker.

- The number of segments (0 - 63) increases or decreases as the volume is adjusted.

Special effects while projecting

- **Turning off the sound**
  Press the MUTE Button to instantly mute the sound.
  Press again to restore the previous sound level.
- **Manual Shutter Function**
  Press the SHUTTER Button to blank out the video and mute the sound.
  Press again to return to the normal screen and sound.
- **Freeze the picture**
  Press the FREEZE Button to freeze the picture and mute the sound.
  Press again to return to the normal screen.

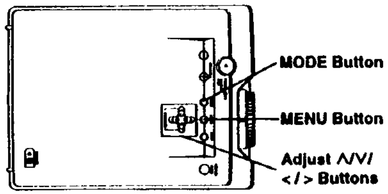
Projected Image Adjustment

This LCD projector's picture is set to standard specifications at the factory. However, you can adjust the image to suit your own preferences by using the RGB or VIDEO ADJUST feature. Three memory modes allow you to adjust and save up to three sets of settings for each input signal (RGB and S-VIDEO/ VIDEO).
For RGB signal input, three items can be adjusted: "BRIGHTNESS", "PICTURE", and "COLOR (White Balance)".
For video signal input, six items can be adjusted: "COLOR", "TINT", "BRIGHTNESS", "PICTURE", "SHARPNESS" and SUB COLOR (White Balance)".

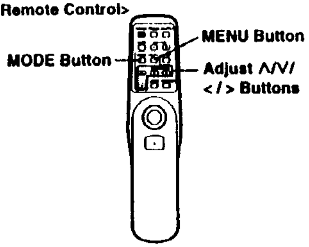
■ Input Image Adjustment

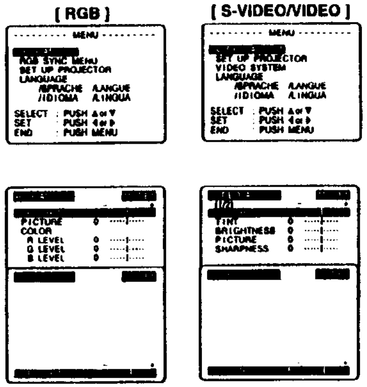
RGB or S-VIDEO/VIDEO input is selected. Use buttons on the LCD Projector or remote control.

<LCD Projector>


MODE Button
MENU Button
Adjust Λ/V/
< / > Buttons

<Remote Control>


MODE Button
MENU Button
Adjust Λ/V/
< / > Buttons


[RGB]
MENU
RGB SYNC MENU
SET UP PROJECTOR
LANGUAGE
/SPRACHE /LANGUE
/IDIOMA /LINGUA
SELECT : PUSH ▲ or ▼
SET : PUSH ◀ or ▶
END : PUSH MENU
PICTURE 0
COLOR
R LEVEL 0
G LEVEL 0
B LEVEL 0
[S-VIDEO/VIDEO]
MENU
SET UP PROJECTOR
VIDEO SYSTEM
LANGUAGE
/SPRACHE /LANGUE
/IDIOMA /LINGUA
SELECT : PUSH ▲ or ▼
SET : PUSH ◀ or ▶
END : PUSH MENU
TINT 0
BRIGHTNESS 0
PICTURE 0
SHARPNESS 0

1 **Press MENU** to display the menu.

2 **Press Λ or V** to select RGB ADJUST or VIDEO ADJUST, **and < or >** to display the screen.
- 3 different sets of control adjustments can be memorized for different projection situations.

3 **Press MODE repeatedly** to choose one of the three memory modes for adjustment.

4 **Press Λ or V** to select, **and < or >** to display the item to be adjusted.

5 **Press < or >** to adjust as described below.
- The setting will be displayed by numerals and a bar.

6 **Press MENU once** to return to the RGB or VIDEO adjust menu, **or three times** to exit.

Adjustments for Input Image

- **COLOR Control** (Adjust color intensity level.)*
  Press > to deepen the color.
  Press < to make the color paler.
- **TINT Control** (Adjust hue for realistic tones.)*
  Press > for more green.
  Press < for more purple.
  [Tint can be adjusted when LCD Projector is set to NTSC, or NTSC4.43 video formats.]
- **BRIGHTNESS Control** (Adjust black level to room brightness.)
  Press > to brighten the image.
  Press < to darken the background.
- **PICTURE Control** (Adjust overall picture intensity.)
  Press > for a stronger picture.
  Press < for a fainter picture.
- **SHARPNESS Control** (Adjust picture sharpness.)*
  Press > to sharpen the edges of the image
  Press < to soften the edges of the image.
- **COLOR or SUB COLOR (White Balance) Control**

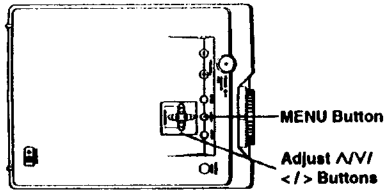
Recall Standard Settings
Press < and > together. If the menu showing all items is displayed, all items will be reset. If a single item is displayed, only that item will be reset.

*: For S-VIDEO or VIDEO mode only.

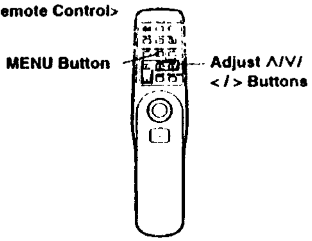
■ RGB Sync Adjustment

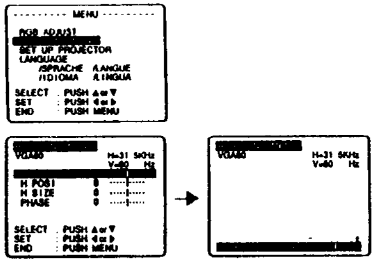
For V POSI, H POSI, H SIZE and PHASE adjustments, see the PC output timing relative value chart below. These adjustments are automatically done when the Auto Setup feature of the ProMouse driver software is used RGB input is selected. Use buttons on the LCD Projector or remote control.

<LCD Projector>


MENU Button
Adjust Λ/V/
< / > Buttons

<Remote Control>


MENU Button
Adjust Λ/V/
< / > Buttons


MENU
RGB ADJUST
SET UP PROJECTOR
LANGUAGE
/SPRACHE /LANGUE
/IDIOMA /LINGUA
SELECT : PUSH ▲ or ▼
SET : PUSH ◀ or ▶
END : PUSH MENU
VGA60
H=31 5KHz
V=60 Hz
H POSI 0
H SIZE 0
PHASE 0
SELECT : PUSH ▲ or ▼
SET : PUSH ◀ or ▶
END : PUSH MENU
VGA60
H=31 5KHz
V=60 Hz

1 **Press MENU** to display the menu.

2 **Press Λ or V** to select RGB SYNC MENU, **and < or >** to display the screen.

3 **Press Λ or V** to select, **and < or >** to display the item to be adjusted.

4 **Press Λ or V** to adjust as described below.
- The setting will be displayed by numerals and a bar.

5 **Press MENU once** to return to the RGB SYNC MENU menu, **or three times** to exit.

Adjustments for RGB Input

- **V POSI (Vertical Position) Control**
  (Adjust vertical position within projected screen.)
  Press < to move down or > to move up.

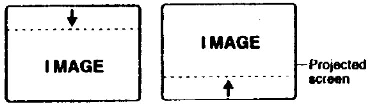


IMAGE
IMAGE
Projected screen

- **H POSI (Horizontal Position) Control**
  (Adjust horizontal position within projected screen.)
  Press < to move left or > to move right.

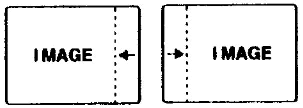


IMAGE
IMAGE

- **H (Horizontal) SIZE Control**
  (Adjust data display, timing, and attain the correct horizontal image size.)
  Press < or > to eliminate the vertical stripes that appear on computer screens.
- **PHASE Control**
  (Adjust vertical line strength so that text is readable.)
  Press < or > to eliminate the flicker (localised noise) that appears on computer screens.

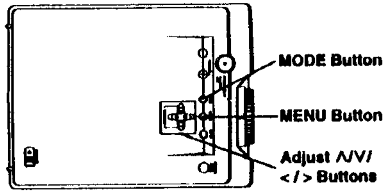
• PC Output Timing Relative Value Chart

Model	Vertical Position	Horizontal Position	Horizontal size
IBM 640 X 350 at 70 Hz/ IBM 640 X 400 at 70 Hz	-30 – +30	-50 – +50	-50 – +90
IBM 640 X 480 at 60 Hz	-30 – +30	-50 – +50	-50 – +90
MAC II 640 X 480	-30 – +30	-50 – +50	-50 – +90
MAC 16" 832 X 624	-30 – +30	-50 – +50	-50 – +90
VESA 640 X 350 at 85 Hz/ VESA 640 X 400 at 85 Hz	-30 – +30	-50 – +50	-50 – +90
VESA 640 X 480 at 72 Hz	-26 – +30	-50 – +50	-50 – +90
VESA 640 X 480 at 75 Hz	14 – +30	-50 – +50	-50 – +90
VESA 640 X 480 at 85 Hz	-23 – +30	-50 – +50	-50 – +90
VESA 800 X 600 at 56 Hz	19 – +30	-50 – +50	-50 – +90
VESA 800 X 600 at 60 Hz	22 – +30	-50 – +50	-50 – +90
VESA 800 X 600 at 72 Hz	-24 – +30	-50 – +50	-50 – +90
VESA 800 X 600 at 75 Hz	-19 – +30	-50 – +50	-50 – +90
VESA 800 X 600 at 85 Hz	-25 – +30	-50 – +50	-50 – +90
VESA 1024 X 768 at 60 Hz	-30 – +30	-50 – +50	-50 – +90
VESA 1024 X 768 at 70 Hz	-30 – +30	-50 – +50	-50 – +90
VESA 1024 X 768 at 75 Hz	-29 – +30	-50 – +50	-50 – +90
MAC 19" 1024 X 768	-27 – +30	-50 – +50	-50 – +90

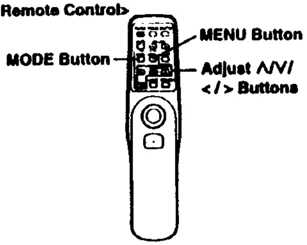
■ Adjusting the White Balance

The picture may become over-saturated with red or blue color. Also, the white color may not be the desired degree of whiteness. In such cases, you may adjust the white balance by the following procedure.
RGB or S-VIDEO/VIDEO input is selected. Use button on the LCD Projector or remote control.

<LCD Projector>


MODE Button
MENU Button
Adjust Λ/V/
</> Buttons

<Remote Control>


MENU Button
MODE Button
Adjust Λ/V/
</> Buttons

1 **Press MENU** to display the menu.

2 **Press Λ or V** to select RGB ADJUST or VIDEO ADJUST, **and < or >** to display the screen.
- 3 different sets of control adjustments can be memorized for different projection situations.

3 **Press MODE repeatedly** to choose one of the three memory modes for adjustment as described in "selecting the Picture Memory" below.

4 **Press Λ or V** to select R LEVEL, G LEVEL, or B LEVEL of the COLOR (for RGB input) or SUB COLOR (for S-VIDEO/VIDEO input).

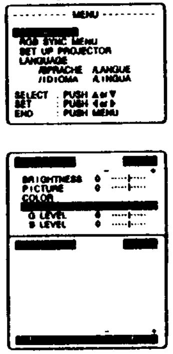
5 **Press < or >** to display the R, G, or B LEVEL adjust screen.

6 **Press < or >** to adjust the R, G, or B level.
- The setting will be displayed by numerals and a bar.

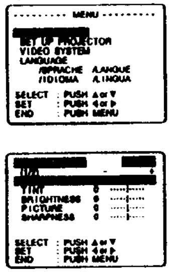
Example of Adjustment: R LEVEL
Press > to strengthen the red component.
Press < to weaken the red component.

7 **Press MENU once** to return the RGB input level menu, **or three times** to exit.

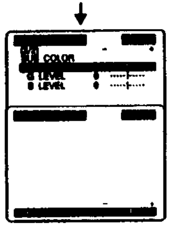
[RGB]


MENU
RGB SYNC MENU
SET UP PROJECTOR
LANGUAGE
/SPRACHE /LANGUE
/IDIOMA /LINGUA
SELECT : PUSH ▲ or ▼
SET : PUSH ◀ or ▶
END : PUSH MENU
BRIGHTNESS 0
PICTURE 0
COLOR
G LEVEL 0
B LEVEL 0

[S-VIDEO/VIDEO]


MENU
SET UP PROJECTOR
VIDEO SYSTEM
LANGUAGE
/SPRACHE /LANGUE
/IDIOMA /LINGUA
SELECT : PUSH ▲ or ▼
SET : PUSH ◀ or ▶
END : PUSH MENU
TINT 0
BRIGHTNESS 0
PICTURE 0
SHARPNESS 0
SELECT : PUSH ▲ or ▼
SET : PUSH ◀ or ▶
END : PUSH MENU

Press Λ or V until SUB COLOR is displayed.


SUB COLOR
G LEVEL 0
B LEVEL 0

■ Selecting the Picture Memory

Press MODE on the LCD Projector or remote control to select the desired picture mode.
- When MODE is pressed, the preset setting will first be displayed on the screen for about 5 seconds.
- Each time you press MODE, the display will change as shown below:

MODE1 → MODE2 → MODE3 →

Projected PC-Card (ATA Flash Card) Data

Using the JPEG Converter Driver Software, you can convert Bit Map files into JPEG (Joint Photographic Experts Group) files and change captured pictures displayed on the PC screen to JPEG format.
The converted JPEG files can be copied to the PC-Card which allows you to project the pictures without connecting a PC (Personal Computer). Follow the instructions below for JPEG Converter Driver Installation and JPEG conversion operation.

System Requirements:
- IBM PC/AT or compatible.
- MS-Windows 95.
- 386SX CPU or higher.
- RAM: 16MB or more recommended.
- 2MB available hard disk space.
- 3.5 inch 1.44MB floppy disk drive (for installation).
- RS-232C serial port
- PCMCIA Type II slot.
- Mouse

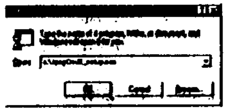
■ JPEG Converter Driver Installation

1 **Turn on the PC** (Personal Computer) and start up Windows 95.

2 **Insert the floppy disk** (JPEG Converter driver software) into a floppy disk drive.

3 **Select [Run...]** from the Windows 95 Start menu.

4 **Type in [a:\JpegCnvE_setup.exe] and click OK.**
- It is assumed that your 3.5 inch 1.44MB floppy disk drive is assigned as "A" drive. If not, replace "A" with the appropriate letter.



5 Follow the instructions as they appear on your PC screen.

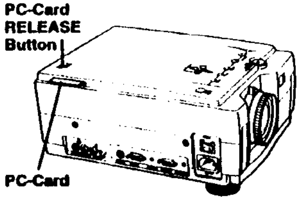
Click "Close".

■ How to make JPEG files

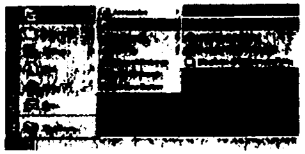
You can make JPEG files using the installed JPEG Converter Driver software. There are two method for making JPEG files, "Capture (Snapshot) feature" and "BMP → JPEG Converter feature".
Follow the applicable instructions below.

1 **Turn on the PC** (Personal Computer) and start up Windows 95.

2 **Insert the PC-Card** (ATA Flash Card not supplied) into the PC-Card Slot on your PC.
- When you want to eject the PC-Card, slide the PC-Card RELEASE button on the LCD Projector.


PC-Card
RELEASE
Button
PC-Card

3 **Select [Start] → [Programs] → [JPEG Converter] → [JPEG converter]** to open the preference menu.



When using the Capture feature (Snapshot)

4 Set the destination folder, the file name and the picture quality in the preference menu. Then click OK.

●Snapshot

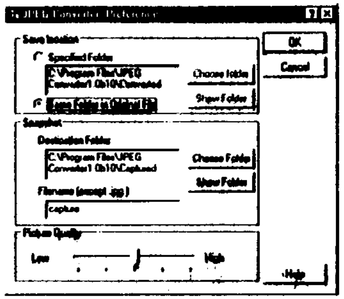
"Destination Folder": Select the folder for saving the captured pictures.

Note: If you select PC-Card in this step, the files are saved to the PC-Card directory.

"Filename (except.jpg)": Input the saving file name of captured picture.

●Picture Quality

You can adjust the picture quality to one of 5 levels.
See "Adjustments for Picture quality" at right.



Adjustments for Picture quality

Level 1 (Low picture quality)	compresses to 1/30 (suitable for low resolution pictures)
Level 2	compresses to 1/20
Level 3	compresses to 1/16
Level 4	compresses to 1/10
Level 5 (High picture quality)	compresses to 1/5 (suitable for high resolution images which include many characters)

5 With the Preference menu opened, start up the PC Application software and display the picture you want to capture on the screen.

6 Press Print Screen on the PC keyboard.

The displayed picture will be saved to the folder set in the Preference menu in JPEG format.

- The file name "(set in the in Preference menu) followed by -1.jpg" will be saved. Subsequent file names will be automaticcaly assigned numbers up to 999 as long as the file name is not changed.

7 Copy the made up JPEG files to the root directory in the PC Card.

- The LCD Projecter can read the root directly in the PC Card only.

When using BMP→JPEG Converter feature

4 Set the save location and the picture quality in the preference menu. Then click OK.

●Save location

"Specified Folder": Select a folder in which to store the converted JPEG files.

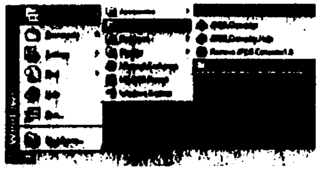
Note: If you select PC-CARD in this step, the files are saved to the PC-Card directory.

"Same Folder in Original File": You may choose the same folder as the original file to store the converted JPEG files.

●Picture Quality

You can adjust the picture quality to one of 5 levels.
See "Adjustments for Picture quality" above.

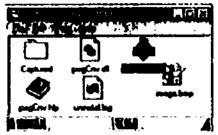
5 Close the preference menu when setup is finished.



6 Select [Start] → [Programs] → [JPEG Converter] → [ShortCut to JPEG Converter Folder].

7 Drag the bit map file you want to convert and drop it in the JPEG Converter icon.

- The JPEG Convert screen will appear and conversion will begin automatically.
- The converted JPEG file is saved to the folder specified in the preference menu.



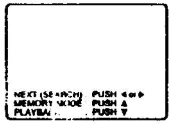
8 Copy the made up JPEG files to the root directory in the PC Card.

- The LCD Projecter can read the root directly in the PC Card only.

■ Project PC-Card (ATA Flash Card) Data (Normal Playback)

1 **Turn on the LCD Projector.**

2 **Press INPUT** on the LCD Projector or remote control and select "PC-CARD".
- The On Screen Display shown at right will appear.



3 **Insert the PC-Card** (ATA Flash Card/ not supplied) into PC-Card Slot on the LCD Projector.
- The LCD Projector goes to PLAY mode and the first picture is projected.

4 **Press < or >** to project the pictures one by one.
>: The next picture is projected.
<: The previous picture is projected.

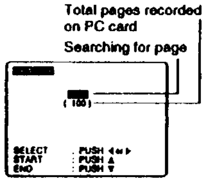
■ To Find a Particular Picture (Search mode)

1 **Press < or >** more than 2 seconds to display the SEARCH screen.
- The next or previous picture will first be projected, and then the Projector will go to search mode.

2 **Press < or >** in search mode to select a specific picture number.
- The picture number will only appear in search mode.
- Holding down < or > will increase the search speed.

3 **Press ∧** to start the picture search. The selected picture will be displayed.

4 **Press V** to cancel search mode.

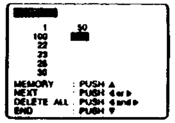


■ To Memorize Selected Pictures (Memory Playback)

The LCD Projector can memorize 24 picture numbers and then project only the picture numbers selected.

1 **Press < or >** to select the desired picture number.
- To locate higher picture numbers, use the search mode.

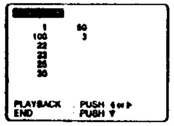
2 **Press ∧** to display the MEMORY screen and memorized number on the screen.



3 **Press ∧** to memorize the selected picture number in step 1.
- The LCD Projector can memorize up to 24 picture numbers.

4 **Press V** to cancel the MEMORY mode.

5 **Press V** to display the PLAY screen and then press < or > to project the first memorized picture.
- ◀ or ▶ will appear on the screen while the memorized picture is projected.
- Press V again to start normal playback.

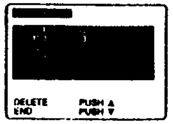


To delete memorized picture numbers:

1 **Press ∧** to display the MEMORY screen and memorized number on the screen.

2 **Press < and >** at the same time.
- All memorized picture numbers will be selected. You cannot select one number when deleting.

3 **Press ∧** to delete all memorized picture number.



Caution:
- The LCD Projector only retains the picture number (not the picture) in memory. If a card other than the one used to memorize the picture numbers will be projected, but because the card is different, the wrong picture will appear.
- If the PC-Card (ATA flash card) can not read in this projector, try re-format the PC-Card with the Windows 95.
- Page numbers remain in memory even if the PC-Card is ejected, therefore if a new PC-Card is inserted with a lesser number of pages, you must delete all previous pages before you can use the MEMORY and PLAYBACK functions.

■ Size of the Projected Screen

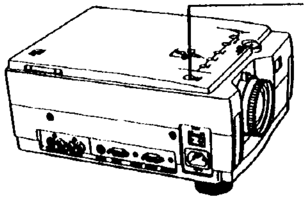
- Because LCD Projector projection is 800 x 600 dot, if the picture file is more than SVGA (800 x 600 dot), a portion of the picture will not be displayed. (The compressed indication of XGA (1024 x 768 dot) can not be projected in PC Card mode.)
- If the picture file is less than VGA (640 x 480 dot) and the expanded projection feature is on, the picture will expand as follows; 640 ---> 800, 480 --> 600
- For the best picture quality, it is recommend that JPEG files be 800 x 600 dot in size.
- The larger the file size, the longer it takes (from when < or > is pressed) to project the picture.

Status Code Display Indications

■ Warning Indicators

This LCD Projector has a STATUS CODE Display which calls your attention to problem conditions existing inside the LCD Projector. The LCD Projector displays a Status Code Indication each time an internal problem is detected. If any of the following indications appear in the STATUS CODE Display, immediately turn off the Main Power switch, and then see the chart to determine a course of action.

<LCD Projector>



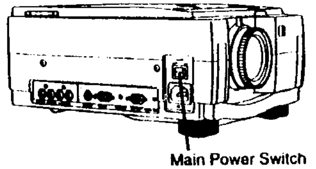
STATUS CODE	Symptom	Problem	Possible Solution
F-L	Lamp Unit automatically turns off due to abnormally high internal temperature. (Stand-by condition)	• Cooling fan malfunction.	• Take the projector to your nearest Service Center.
F-O		• Misinstalled Air Filter Unit.	• Properly install Air Filter Unit.
A-n		• Temperature Sensor malfunction.	• Take the projector to your nearest Service Center.
A-0 A-1		• Clogged air filter. • Blocked air intake. • The surrounding temperature of the place of use may be too high.	• Clean the filter. • Relocate projector to a proper location. • Place projector so that surrounding temperature is between 5°C (41°F) and 40°C (104°F) and the humidity is between 10% and 80% (with no condensation).
L-n	Lamp does not light up.	• Lamp is burned-out.	• Take the projector to your nearest Service Center.
P-2		• Lamp Voltage is not correct.	
P-3	Abnormally high internal temperature.	• Abnormal temperature rise.	
P-4		• Others cause.	
L-1	Lamp operation time is over 1000 hours.	• It is nearly time to replace the Lamp Unit.	• Replace the Lamp unit.
L-0	Lamp operation time is over 1100 hours.	• The Lamp Unit must be replaced.	
C-d	Forced cooling fan operating to expedite lamp replacement.	——	——

Note:
- Please wait one minute before turning the power back on, to allow the lamp to cool. A much longer time may be required if the projector had attained an abnormally high internal temperature.

Cleaning the Air Filter

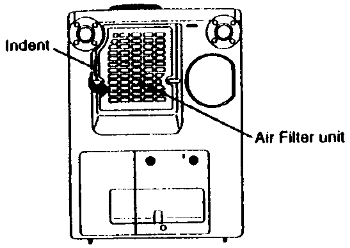
■ Air Filter

The air filter should be cleaned about every 100 hours. Also, clean the air filter if the "A-0" is indicated in the STATUS CODE display.
Replace the filter when it is clogged or dirty even after cleaning.



■ Cleaning procedure

Tools required: Vacuum Cleaner.
- Wait until the cooling fan stops and the STANDBY(R) ON(G) indicator turns solid red.

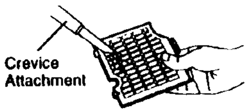


1 **Set the Main Power Switch to OFF and unplug the power cord.**

2 **Place the LCD Projector up on its side as illustrated.**

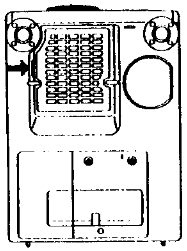
3 **Remove the Air Filter unit**
Hold the indent on the Air Filter unit with your hands and pull the Air Filter unit out of the LCD Projector.

4 **Clean the Filter.**
Gently remove any accumulated dust from Air Filter unit with your vacuum cleaner.



CAUTION: Operating LCD Projector with torn or damaged Filter may cause damage to LCD Projector.

5 **Replace the Air Filter unit.**
Slide the Air Filter unit into the LCD Projector until hollows in the Air Filter unit are aligned with the hollows in the Projector.



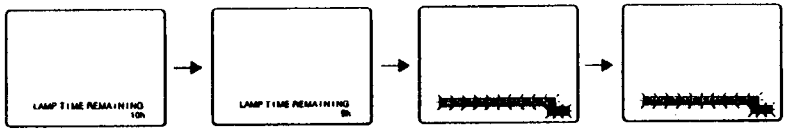
Note:
- The LCD Projector power cannot be turned on unless the Air Filter unit is correctly installed.

Lamp Replacement

■ Lamp replacement period

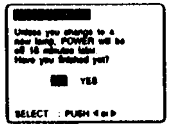
The LCD Projector lamp has a limited operating life of approximately 1100 hours.
"LAMP TIME REMAINING 10h" will be displayed on-screen when operation time reaches 1090 hours.
Then, each time the power is turned on, the Lamp life remaining will be displayed.

- A 10 second warning display (15 seconds when the LCD Projector power is turned on) will appear every 1 hour from 1090 hours of operation time. And the warning will flash during the last 5 minutes of Lamp life.


LAMP TIME REMAINING
10h
LAMP TIME REMAINING
9h

In Case Lamp Use Reaches 1100 hours

The LCD Projector will shut itself OFF and the STATUS CODE indication becomes "L-0".


YES
SELECT : PUSH ◀ or ▶

a. Replace the Lamp as described in steps 1-7 and step 8.

b. Press POWER ON, the LAMP TIME RESET display will appear to reset the Lamp time.
   - Only this screen will be displayed when POWER is pressed until lamp time is reset. (The LCD Projector cannot display a normal picture.)
   - If the Lamp Time is not reset, this screen will disappear and the LCD Projector will shut itself OFF after about 10 minutes.

c. Press < or > to select YES.

d. Turn the POWER OFF to reset the Lamp Time.

■ Lamp replacement procedure

Order Lamp ET-LA555.
Tools required: A coin.

1 **After the cooling fan has stopped, and STANDBY(R) ON(G) indicator turns solid red. Set the Main Power Switch to OFF and unplug the power cord.**

Note: Please wait more than one hour for lamp replacement.

[If you need to replace the lamp more urgently]
- The LCD Projector has a forced cooling feature. After the POWER switch is turned OFF, and sometime during about the first munite of the normal cooling fan operation, press < and > at same time. The cooling fan will change to high speed for about 10 minutes. (The "C-d" STATUS CODE will be displayed.)

2 **Grabbing the handle, place the LCD Projector up on its side as illustrated.**

3 **Remove the Lamp cover screws.**
First read caution and warning labels on Lamp cover. Then, remove the Lamp cover screws (2) by using coin, and take off the lamp cover.

4 **Remove the Lamp unit screw.**
Remove the lamp unit screw (2), then grasp the Lamp unit handle and carefully pull it from the LCD Projector. Keep Lamp housing opening to your right. Do not touch Lamp or point Lamp opening at anyone.

[illegible]

CAUTION: [illegible]

5 **Install the new Lamp unit.**
Remove the Lamp ET-LA555 from the LCD Projector and install a new lamp unit (ET-LA555).
- Do not drop, impact of dropping may cause Lamp to explode.

6 **Replace the Lamp unit screws.**
Replace the Lamp unit screw and the Lamp cover screws using a coin to tighten.
- Properly dispose of old Lamp.

7 **Plug the LCD Projector back in by inserting Power cord in LCD Projector AC socket and set the Main Power Switch to ON.**

8 **Press POWER** to turn LCD Projector ON.

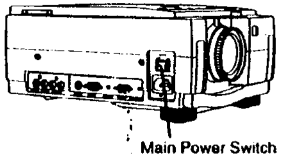
9 **Press MENU** to display the menu.

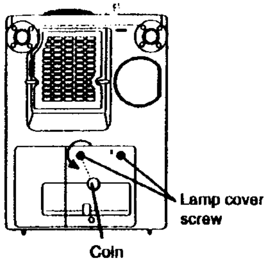
10 **Press ∧ or ∨** to select SET UP PROJECTOR, **and then press < or >** to display the screen.

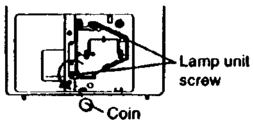
11 **Press ∧ or ∨** to select LAMP TIME RESET, **and then press < or >** to display the screen.

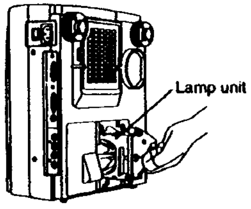
12 **Press < to >** select YES. "Push POWER button to reset" will appear.

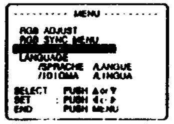
13 **Press POWER** to reset the Lamp Time to "0".

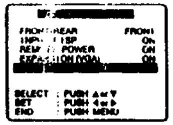

Main Power Switch

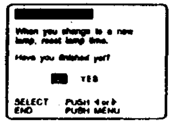

Lamp cover screw
Coin


Lamp unit screw
Coin




MENU
RGB ADJUST
RGB SYNC MENU
LANGUAGE
/SPRACHE /LANGUE
/IDIOMA /LINGUA
SELECT PUSH ▲ or ▼
SET : PUSH ◀ or ▶
END PUSH MENU


FRONT/REAR FRONT
POWER ON
ON
ON
SELECT : PUSH ▲ or ▼
SET : PUSH ◀ or ▶
END : PUSH MENU


YES
SELECT PUSH ◀ or ▶
END PUSH MENU

SERVICE CAUTIONS AND NOTES

SERVICE POSITION

The positions shown in Fig. 2 and Fig. 3 are used for checking and replacing parts.
Extension Cables are necessary for servicing.

Extension Cable Kit (LSUZ0004)
Extension Cable Kit (LSUZ0004) contains following parts shown in Fig. 1.

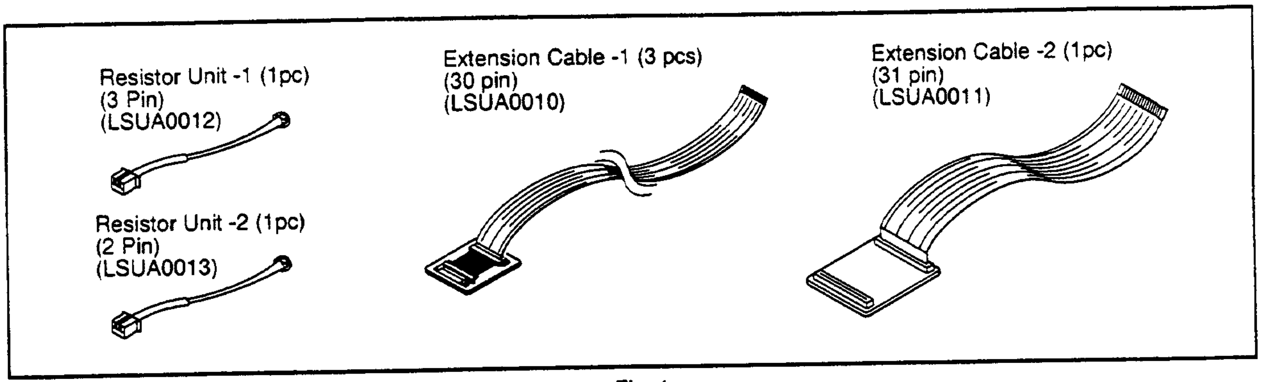


Fig. 1

Service Position 1

Service Position 1 is used to check Main C.B.A., LCD Drive C.B.A., Video C.B.A. and Card C.B.A.

1) In the order described in the "1. Disassembly of Cabinet Parts" of Disassembly Procedures, remove the Main C.B.A., LCD Drive C.B.A., Video C.B.A. and Card C.B.A.
2) Reinstall the Lamp Cover Unit in original position after removal of Video C.B.A.
   Note: If Lamp Cover Unit is not installed, power can not be turned on.
3) Connect Extension Cables as follows:
   a) Connect Resistor Unit -1 (3 pin) to P6003 of the Main C.B.A. as shown in Fig. 2.
   b) Connect Resistor Unit -2 (2 pin) to P6004 of the Main C.B.A. as shown in Fig. 2.
   c) Connect Extension Cable -1 (30 pin) between P3501 on the LCD Drive C.B.A. and Red LCD Unit.
   d) Connect Extension Cable -1 (30 pin) between P3502 on the LCD Drive C.B.A. and Green LCD Unit.
   d) Connect Extension Cable -1 (30 pin) between P3503 on the LCD Drive C.B.A. and Blue LCD Unit.
   e) Connect Extension Cable -2 (31 pin) between P3001 on the Main C.B.A. and P4003 on the Jack C.B.A.
   f) Connect Flexible Cable (31 pin) between P3002 on the Main C.B.A. and P5002 on the Video C.B.A.
4) Reconnect the IR Sensor 1 C.B.A. Reconnect the IR Sensor 2 C.B.A. if using remote control.
5) Reinstall Card C.B.A. as shown in Fig. 3 when servicing Card C.B.A.
6) Carefully place the Main C.B.A., LCD Drive C.B.A. and Video C.B.A. as shown in Fig. 2.
7) After servicing, remove Extension Cables.
8) Reinstall the Main C.B.A., LCD Drive C.B.A. and Video C.B.A. and reconnect connectors.
9) Make sure that all wires and leads are placed in their original position.

Service Position 2

Service Position 2 is used to check Jack C.B.A.

1) In the order described in the "1. Disassembly of Cabinet Parts" of Disassembly Procedures, remove the Card C.B.A., Main C.B.A., LCD Drive C.B.A., Optical Unit, Inlet C.B.A. and Jack C.B.A.
2) Reinstall the Card C.B.A., Main C.B.A., LCD Drive C.B.A., Optical Unit and Inlet C.B.A. in original position.
3) Carefully place the Jack C.B.A. as shown in Fig. 3.
4) After servicing, remove Card C.B.A., Main C.B.A., LCD Drive C.B.A., Optical Unit, Inlet C.B.A. and Jack C.B.A.
5) Reinstall the Jack C.B.A. and reconnect connector. Then reinstall Card C.B.A., Main C.B.A., LCD Drive C.B.A., Optical Unit and Inlet C.B.A.
6) Make sure that all wires and leads are placed in their original position.

Note: Be sure to obtain GND of Card C.B.A. firmly when servicing Card C.B.A.

Service Position 1

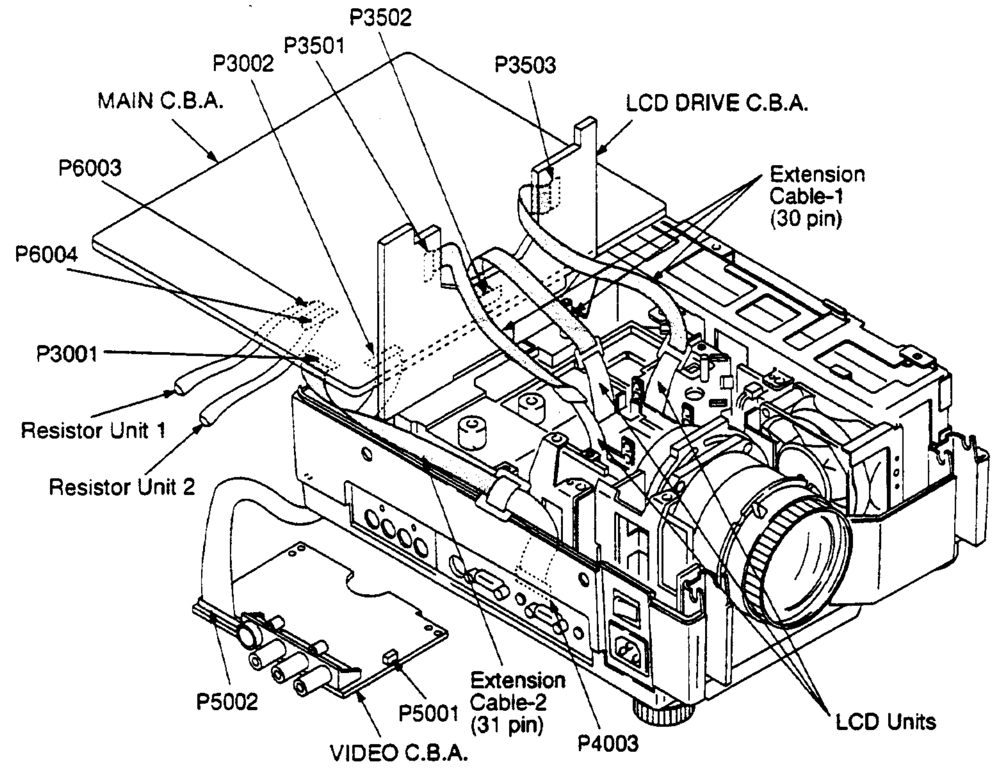

P3502
P3501
P3002
P3503
MAIN C.B.A.
LCD DRIVE C.B.A.
P6003
Extension
Cable-1
(30 pin)
P6004
P3001
Resistor Unit 1
Resistor Unit 2
P5002
P5001
Extension
Cable-2
(31 pin)
P4003
VIDEO C.B.A.
LCD Units

Fig. 2

Service Position 2

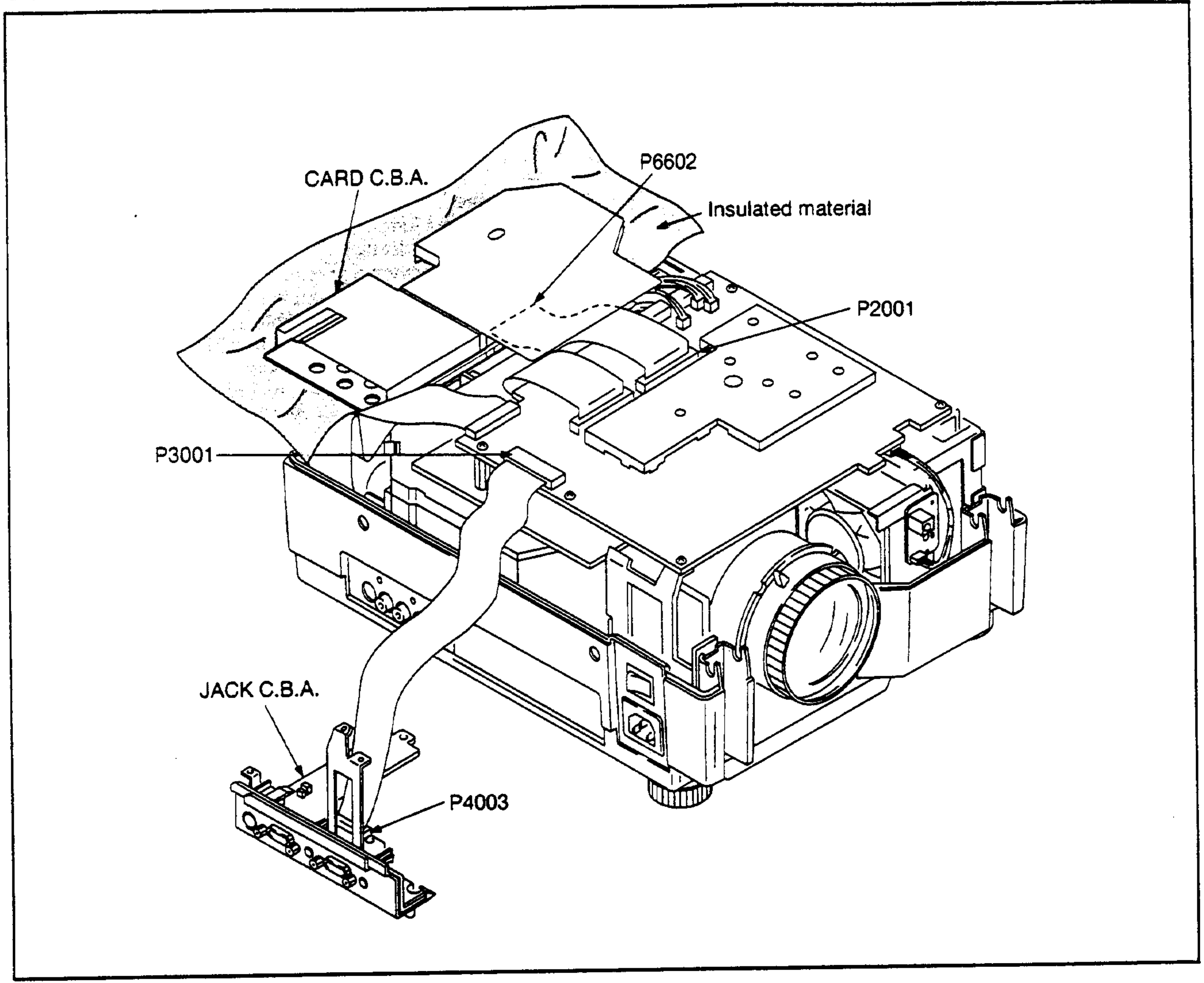


Fig. 3

SERVICE POSITION FOR ADJUSTMENTS

Adjustments can be performed by removing only Top Cover Unit.
However, when performing following adjustments, Extension Cable-2 (31 Pin) must be connected between P3001 on the Main C.B.A. and P4003 on the Jack C.B.A. as shown in Fig. 2 and open Main C.B.A. to gain access to VRs or TPs located on LCD Drive C.B.A. or foil side of Main C.B.A. for their adjustments.

1. LCD Common Adjustment
2. Black & White Level Adjustment
3. White Balance Adjustment
12. Gamma Correction Adjustment
24. LCD Auxilialy Signal Adjustment

How to display Lamp operation time (Service Mode)

1) Connect a jumper wire between TP6013 and TP6014 on Main C.B.A. for over 5 seconds as shown in Fig. 4.

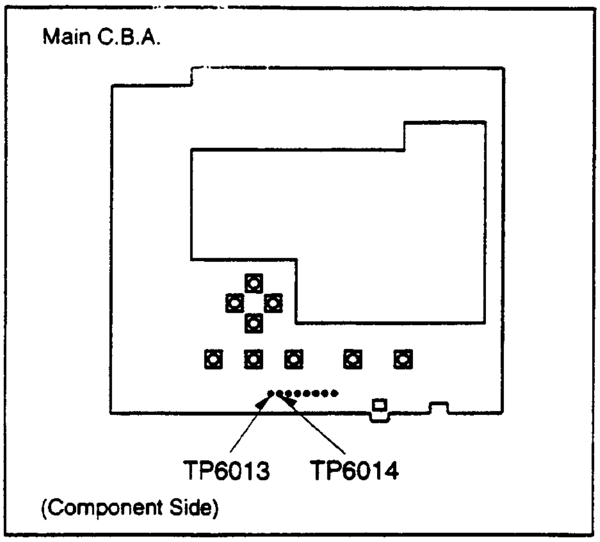
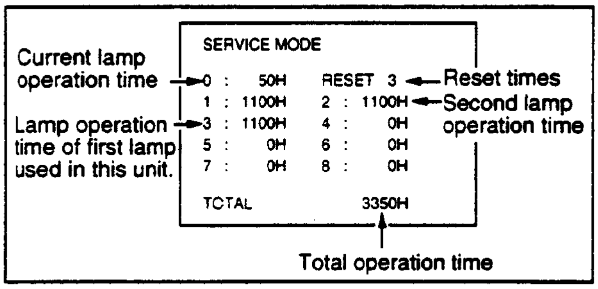


Fig. 4

2) Lamp operation time will be displayed as shown in Fig. 5.


Current lamp operation time
Lamp operation time of first lamp used in this unit.
Reset times
Second lamp operation time
Total operation time

```
SERVICE MODE
0 :   50H    RESET 3
1 : 1100H    2 : 1100H
3 : 1100H    4 :    0H
5 :    0H    6 :    0H
7 :    0H    8 :    0H
TOTAL             3350H
```

Fig. 5

3) Connect a jumper wire between TP6013 and TP6014 for over 5 seconds again or press any operation button on either LCD Projector, or remote control in order to release from service mode.

Note:
After replacing Main C.B.A. or both EEPROM IC's (IC6002 & IC6005), memory data such as history of lamp operation time has been reset.
However, it can be remained by installing both EEPROM IC's (IC6002 & IC6005) to replaced Main C.B.A. from original Main C.B.A.

How to initialize EEPROM IC

Note:
コウテイモード = Mark for factory set mode.

■If both EEPROM IC's (IC6002, IC6005) on Main C.B.A. are replaced:

After replacing both EEPROM IC's (IC6002, IC6005), be sure to perform each of following steps in the order presented.

1. Connect a jumper wire between TP6011 and TP6012 on Main C.B.A. for over 5 seconds to set to factory set mode. Then, remove the jumper wire.
2. コウテイモード appears on screen.
3. Connect a jumper wire between TP6011 and TP6012 again for over 5 seconds to initialize EEPROM IC's. Then, remove the jumper wire.
4. "SELF CHECK" appears on screen.
5. Remove jumper wires and "MEMORY OK" appears on screen.
6. Perform "12. Gamma Correction adjustment" on Page 3-27.
7. After completing this Gamma Correction adjustment, press the **MENU** button to memorize adjustment data in EEPROM IC and release from FACTORY ADJUST mode.
   Otherwise, adjustment will be cancelled.
8. コウテイモード appears on screen.
9. Press the POWER button (SW6001 on Main C.B.A.) in order to release from factory set mode (POWER off).

Note:

1) When initializing EEPROM IC's, memory data such as history of lamp operation time and adjustment data will be reset.
2) When replacing EEPROM IC's on Main C.B.A., make sure to replace both EEPROM IC's (IC6002 & IC6005).

■If EEPROM IC (IC5011) on Video C.B.A. is replaced:

After replacing EEPROM IC (IC5011), be sure to perform each of following steps in the order presented.

1. Connect a jumper wire between TP6011 and TP6012 on Main C.B.A. for over 5 seconds to set to factory set mode. Then, remove the jumper wire.
2. コウテイモード appears on screen.

Caution:
Do not short-circuit TP6011 and TP6012 again, while コウテイモード appears on screen.
Otherwise, memory, such as history of lamp operation time, of EEPROM IC's (IC6002, IC6005) is reset.

3. Connect jumper wires between TP6013 and TP6014, TP6015 and TP6016 on Main C.B.A. so that both are connected for over 5 seconds to initialize EEPROM IC (IC5011).
4. "SELF CHECK" appears on screen.
5. Remove jumper wires and "MEMORY OK" appears on screen.
6. Press the INPUT button to select VIDEO MODE.
7. Connect a jumper wire between TP6015 and TP6016 on Main C.B.A. for over 5 seconds to set to FACTORY ADJUST mode.
8. Perform adjustments 13 through 23 on Page 3-29 ~ 3-34.
9. After completing all adjustments, press the **MENU** button to memorize adjustment data in IC5011 (EEPROM IC) and release from FACTORY ADJUST mode.
   Otherwise, all adjustments will be cancelled.
10. コウテイモード appears on screen.
11. Press the POWER button (SW6001 on Main C.B.A.) in order to release from factory set mode (POWER off).

Lamp Unit

1. Be sure to disconnect the AC Plug when replacing the lamp.
2. Since the lamp reaches a very high temperature during its operation, wait until it has completely cooled off when replacing the Lamp Unit or cleaning the Lamp reflector.
3. The lamp emits small amounts of UV-Radiation, avoid direct-eye contact.
4. The high pressure lamp involves a risk of explosion. Therefore, do not touch the Lamp Bulb when servicing. (See Fig. 6)
5. If cleaning is necessary, gently wipe surface of the Lamp Reflector with cleaning paper.

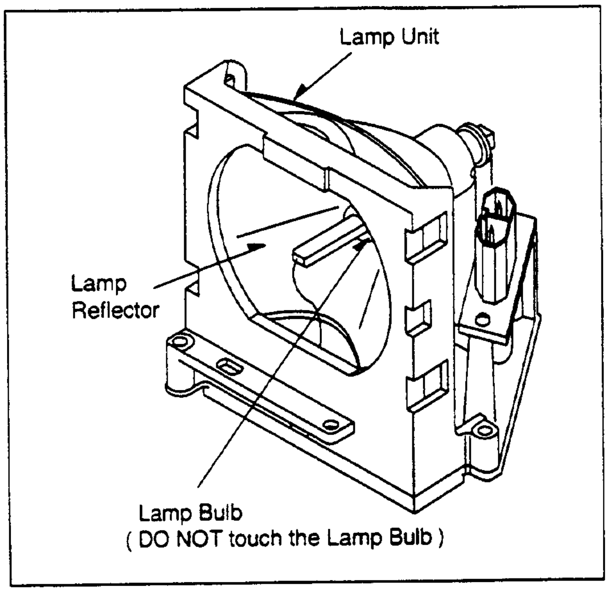


Fig. 6

Cleaning the Projection Lens

Use lens cleaning paper and cleaner available at your local camera shop, etc.
Dampen the cleaning paper with cleaner and gently wipe the lens surface from the center outward to remove dust as shown in Fig. 7.

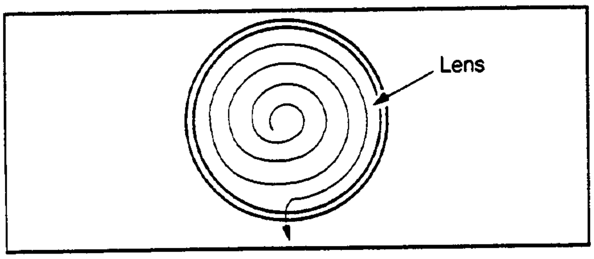


Fig. 7

Note:
Do not use excessive force when cleaning the lens.

Connection of the Flexible Cables to Trap Connectors

Plug No.	No. of Pins	C.B.A.
P3501	30 pin	LCD Drive C.B.A.
P3502	30 pin	LCD Drive C.B.A.
P3503	30 pin	LCD Drive C.B.A.

(Removal and Installation of Flexible Cable)

a. Removal
   1. On the Trap Connector, swing both ends of the Locking Tab to release the Trap portion of the Connector. Then pull Flexible Cable out to remove as shown in Fig. 8.

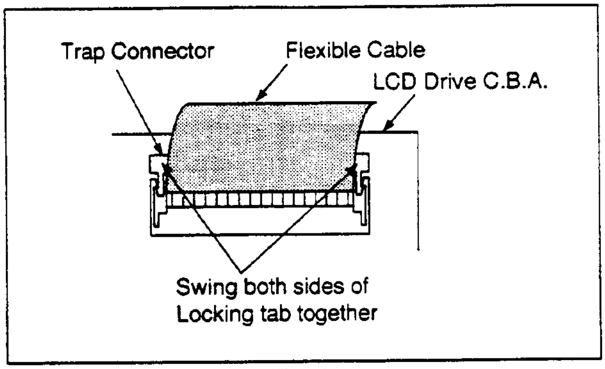


Fig. 8

b. Installation
   1. Insert the end of the Flexible Cable into the Trap Connector.
   2. Without twisting the Cable. press the Locking Tab in into its locked positions.
   3. Gently and slightly pull up on the Cable to confirm if it is installed firmly.

Wire and Lead Position Diagram

After servicing, make sure that all wires and leads are placed in their original position.
It is important for the best operation of the unit.

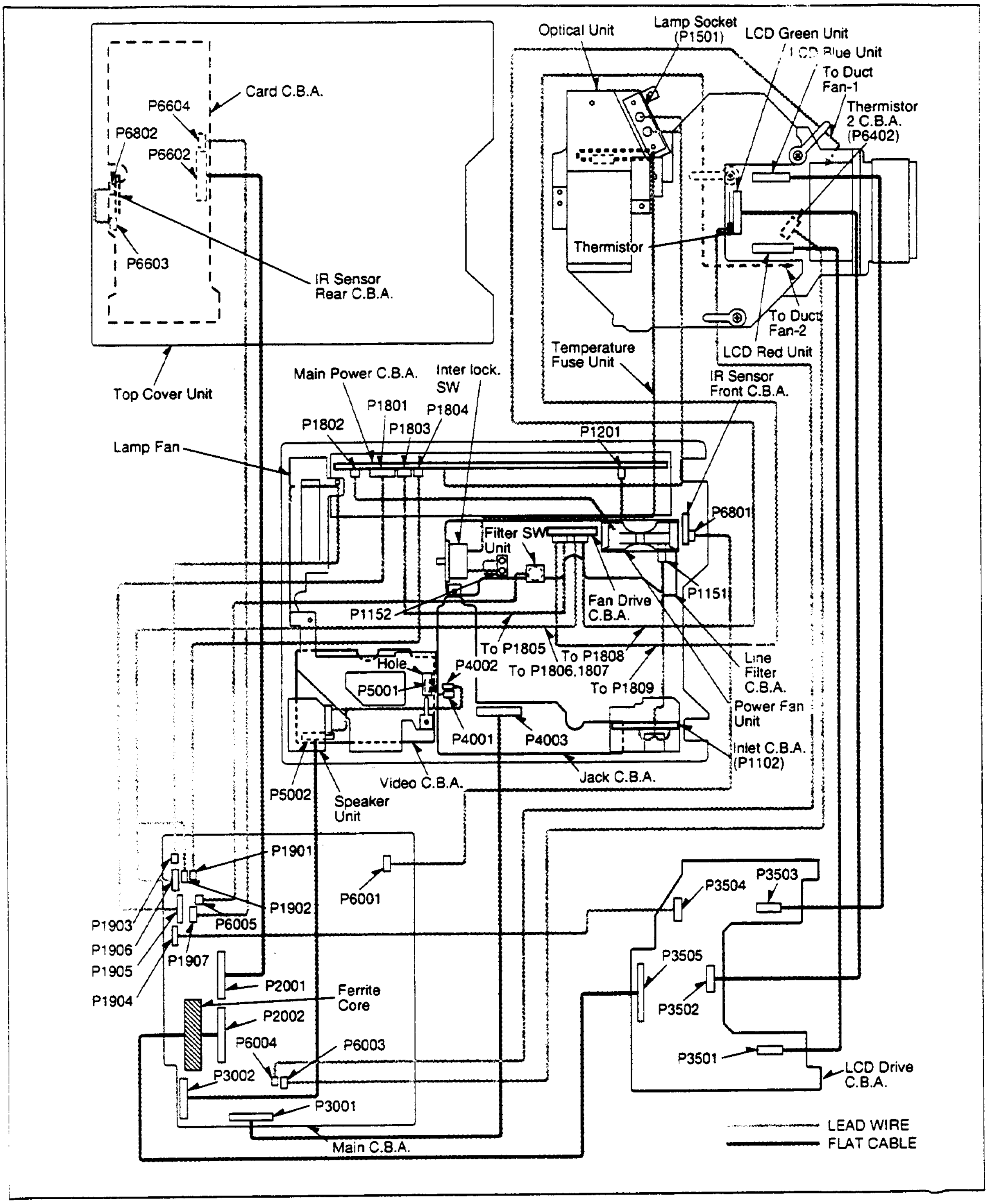

Optical Unit
Lamp Socket (P1501)
LCD Green Unit
LCD Blue Unit
To Duct Fan-1
Thermistor 2 C.B.A. (P6402)
Card C.B.A.
P6604
P6802
P6602
P6603
IR Sensor Rear C.B.A.
Thermistor
To Duct Fan-2
LCD Red Unit
Temperature Fuse Unit
IR Sensor Front C.B.A.
Top Cover Unit
Main Power C.B.A.
Inter lock. SW
P1801
P1804
P1802
P1803
P1201
Lamp Fan
P6801
Filter SW Unit
Fan Drive C.B.A.
P1151
P1152
To P1805
To P1808
To P1806,1807
To P1809
Line Filter C.B.A.
Power Fan Unit
Hole
P4002
P5001
P4001
P4003
Inlet C.B.A. (P1102)
Jack C.B.A.
Video C.B.A.
P5002
Speaker Unit
P1901
P6001
P1902
P6005
P1903
P1906
P1905
P1904
P1907
P2001
Ferrite Core
P2002
P6004
P6003
P3002
P3001
Main C.B.A.
P3504
P3503
P3505
P3502
P3501
LCD Drive C.B.A.
LEAD WIRE
FLAT CABLE

Fig. 9

DISASSEMBLY/ASSEMBLY PROCEDURES

1. DISASSEMBLY OF CABINET PARTS

1-1. DISASSEMBLY FLOWCHART

This flowchart indicates the disassembly steps of the cabinet parts and the P.C. Boards in order to gain access to the item(s) to be serviced. When reassembling, perform the step(s) in the reverse order.

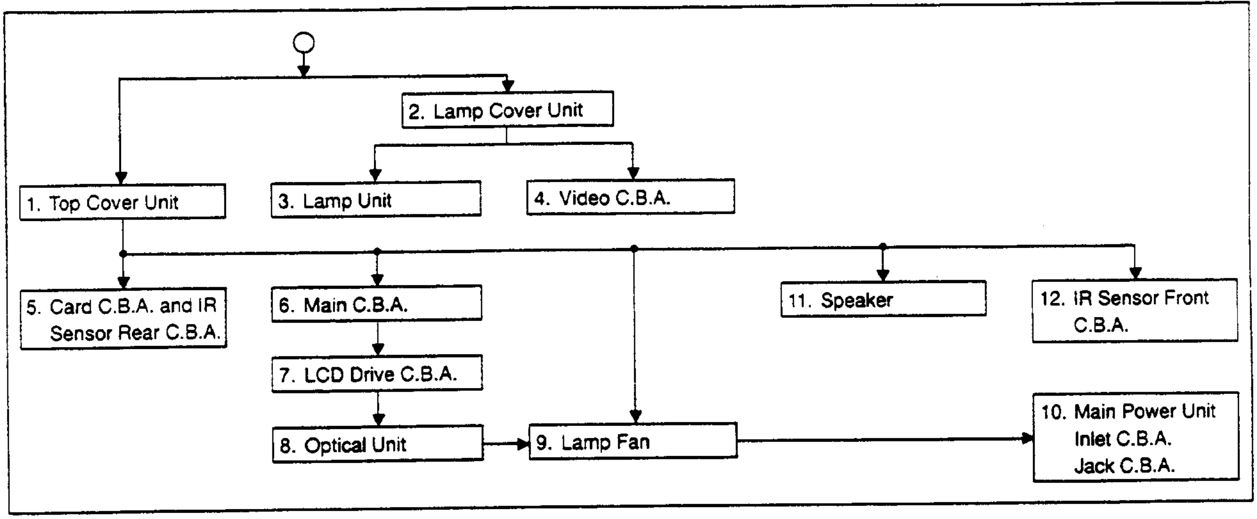

2. Lamp Cover Unit
1. Top Cover Unit
3. Lamp Unit
4. Video C.B.A.
5. Card C.B.A. and IR Sensor Rear C.B.A.
6. Main C.B.A.
11. Speaker
12. IR Sensor Front C.B.A.
7. LCD Drive C.B.A.
8. Optical Unit
9. Lamp Fan
10. Main Power Unit Inlet C.B.A. Jack C.B.A.

Fig. D1 (FLOWCHART OF CABINET)

1-2. DISASSEMBLY METHOD

1. Removal of the Top Cover Unit

1. Remove 4 screws (A) as shown in Fig. D2.
2. Swing the Handle to access 2 screws (B) and then remove 3 screws (B).
3. Disconnect 2 connectors P1907 and P2001 (Coming from Card C.B.A.) on the Main C.B.A.

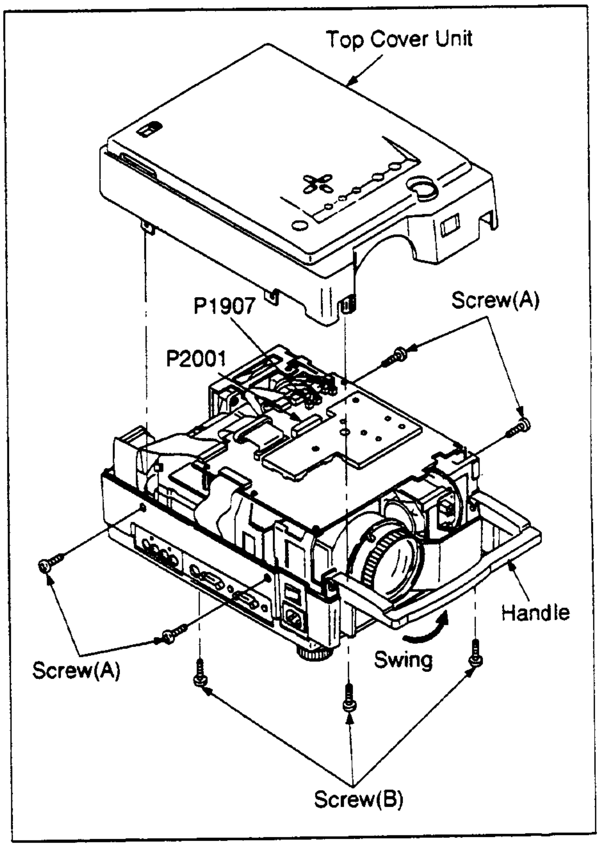

Top Cover Unit
P1907
Screw(A)
P2001
Handle
Swing
Screw(A)
Screw(B)

Fig. D2

2. Removal of the Lamp Cover Unit.

1. Loosen 2 screws (C) to remove Lamp Cover Unit as shown in Fig. D3.

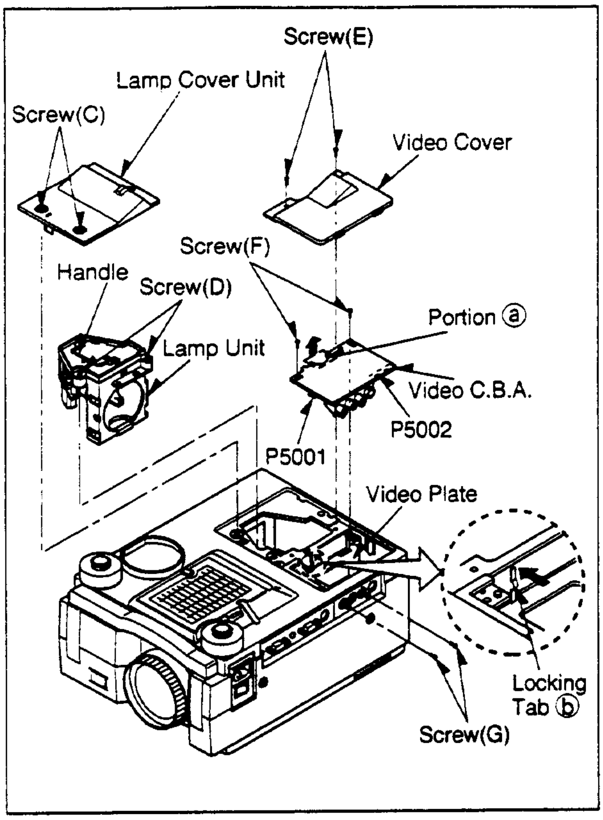

Screw(E)
Lamp Cover Unit
Screw(C)
Video Cover
Screw(F)
Handle
Screw(D)
Portion ⓐ
Lamp Unit
Video C.B.A.
P5002
P5001
Video Plate
Locking Tab ⓑ
Screw(G)

Fig. D3

3. Removal of the Lamp Unit

1. Loosen 2 screws (D) as shown in Fig. D3.
2. Hold the handle of Lamp Unit and carefully pull out the Lamp Unit.

Caution: Do not touch the Lamp House, Lamp Unit, etc. until is has completely cooled off.
Be careful not to touch the Lamp Bulb.

4. Removal of the Video C.B.A.

1. Remove 2 screws (E) and then remove Video Cover as shown in Fig. D3.
2. Remove 2 screws (F) and 2 screws (G).
3. Press the Locking Tab ⓑ until it clears the Video C.B.A. while lifting up the Portion ⓐ of the Video C.B.A. to remove the Video C.B.A.
4. Disconnect 2 connectors P5001 and P5002.

5. Removal of the Card C.B.A. and IR Sensor Rear C.B.A.

1. Remove 5 screws (H) as shown in Fig. D4.
2. Remove Card C.B.A. along with IR Sensor Rear C.B.A.
3. Disconnect a connector P6603 to remove IR Sensor C.B.A. from Card C.B.A.

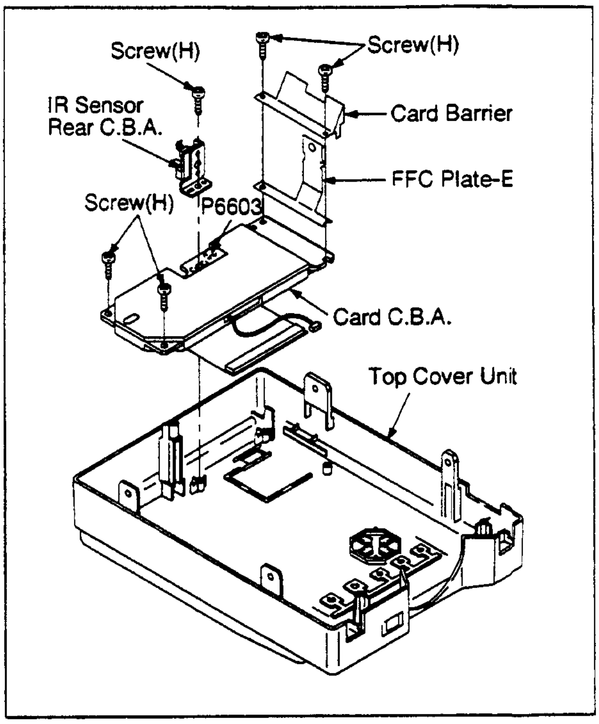

Screw(H)
Screw(H)
IR Sensor Rear C.B.A.
Card Barrier
FFC Plate-E
Screw(H)
P6603
Card C.B.A.
Top Cover Unit

Fig. D4

6. Removal of the Main C.B.A.

1. Remove 5 screws (I) as shown in Fig. D5.
2. Disconnect 13 connectors P1901, P1902, P1903, P1904, P1905, P1906, P2002, P3001, P3002, P6001, P6003, P6004 and P6005.

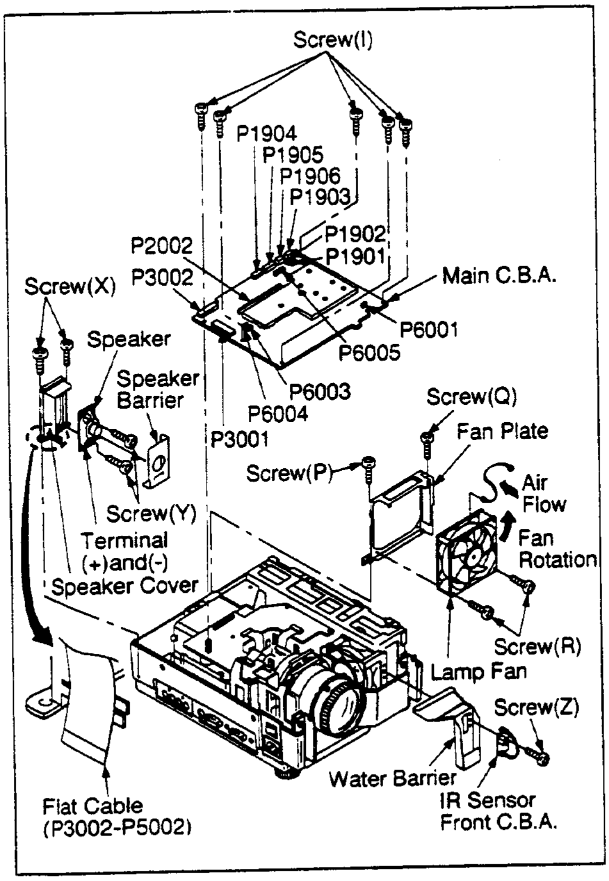

Screw(I)
P1904
P1905
P1906
P1903
P1902
P1901
P2002
P3002
Screw(X)
Main C.B.A.
Speaker
P6001
P6005
Speaker Barrier
P6003
P6004
P3001
Screw(Q)
Fan Plate
Screw(P)
Air Flow
Fan Rotation
Screw(Y)
Terminal (+)and(-)
Speaker Cover
Screw(R)
Lamp Fan
Screw(Z)
Water Barrier
Flat Cable (P3002-P5002)
IR Sensor Front C.B.A.

Fig. D5

7. Removal of the LCD Drive C.B.A.

1. Remove 4 screws (J) and a screw (K) as shown in Fig. D6.
2. Disconnect 3 connectors P3501, P3502 and P3503.

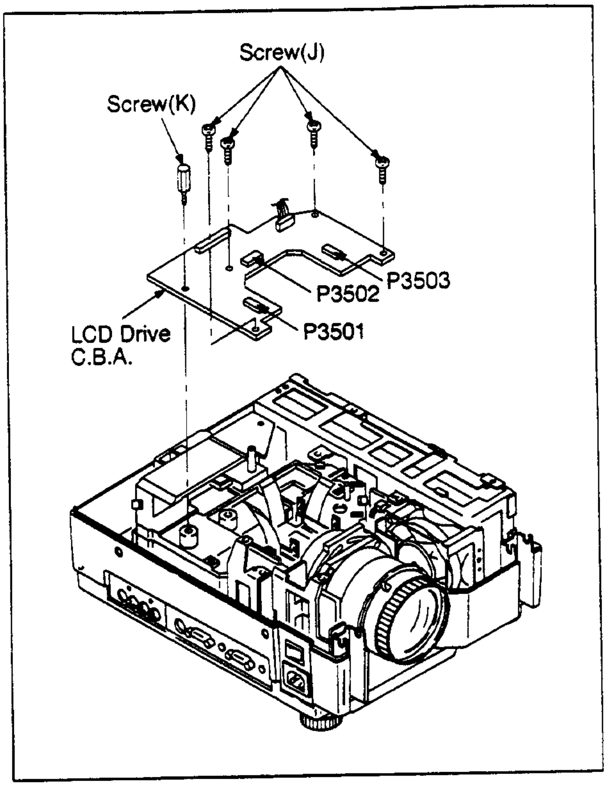

Screw(J)
Screw(K)
P3502
P3503
LCD Drive C.B.A.
P3501

Fig. D6

8. Removal of the Optical Unit

1. Remove 2 screws (L) as shown in Fig. D7.
2. Remove Lamp Air Duct along with Duct Barrier.
3. Remove 2 screws (M) and then pull out the Lamp Socket.
4. Remove a screw (N) and then remove Lamp House.
5. Remove 3 screws (O).
6. Disconnect 2 connectors P1808 and P1809 on the Fan Drive C.B.A.

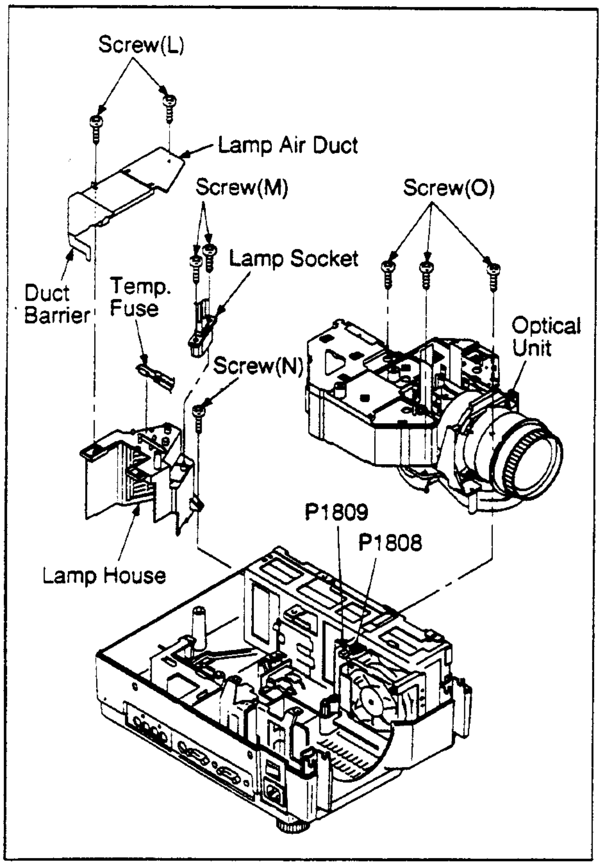

Screw(L)
Lamp Air Duct
Screw(M)
Screw(O)
Lamp Socket
Duct Barrier
Temp. Fuse
Optical Unit
Screw(N)
P1809
P1808
Lamp House

Fig. D7

Assembly Note:

1. Make sure that the Lamp Socket and the Temperature Fuse are installed properly as shown in Fig. D8.

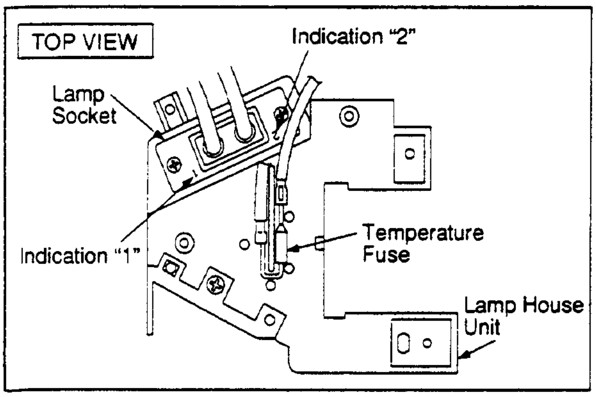

TOP VIEW
Indication "2"
Lamp Socket
Indication "1"
Temperature Fuse
Lamp House Unit

Fig. D8

9. Removal of the Lamp Fan

1. Remove a screw (P) and a screw (Q) as shown in Fig. D5, Page 3-9.
2. Disconnect a connector P1903.
3. Remove Lamp Fan along with Fan Plate.
4. Remove 2 screws (R).

Assembly Notes:

1. Make sure to install Lamp Fan to the Bottom Case Unit with the name plate facing outside as shown in Fig. D5, Page 3-9.
2. The fan rotation direction and air flow direction are indicated with arrow.

10. Removal of the Main Power Unit, the Inlet C.B.A. and the Jack C.B.A.

- Removal of the Main Power Unit

1. Remove 2 screws (S) to remove Joint Plate as shown in Fig. D9.
2. Remove 2 screws (T) to remove FCC Plate-B.
3. Remove 3 screws (U).
4. Disconnect a connector P1151 to remove the Main Power Unit.

- Removal of the Inlet C.B.A.

5. Remove 2 screws (V).
6. Press the Inlet Case while pressing the portion ⓐ of Bottom Case Unit to remove the Inlet C.B.A.

- Removal of the Jack C.B.A.

7. Remove 3 screws (W) to remove the Jack C.B.A.

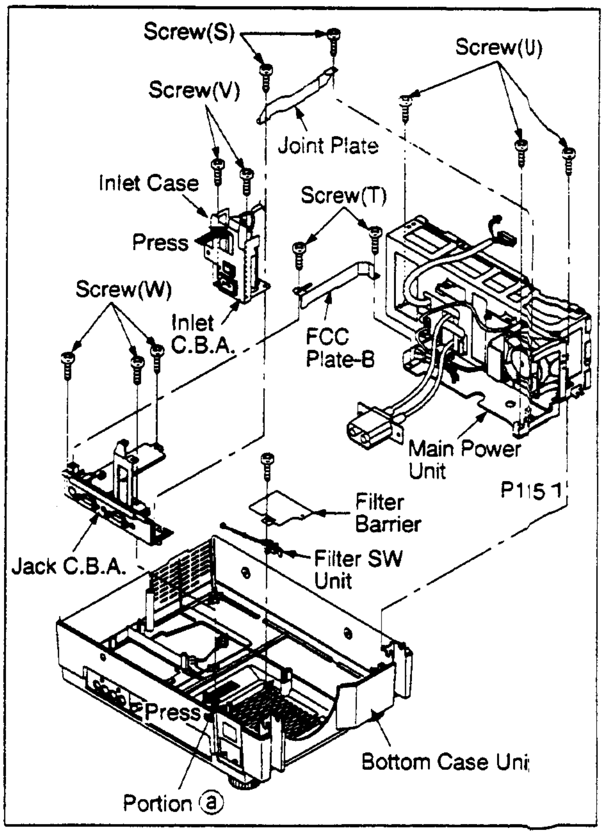

Screw(S)
Screw(U)
Screw(V)
Joint Plate
Inlet Case
Screw(T)
Press
Screw(W)
Inlet C.B.A.
FCC Plate-B
Main Power Unit
P1151
Filter Barrier
Jack C.B.A.
Filter SW Unit
Press
Bottom Case Unit
Portion ⓐ

Fig. D9

11. Removal of the Speaker

1. Remove 2 screws (X) as shown in Fig. D5, Page 3-9.
2. Remove Speaker with Speaker Cover.
3. Disconnect Speaker terminals (+): red and (–): black.
4. Remove Speaker Barrier.
5. Remove 2 screws (Y).

12. Removal of the IR Sensor Front C.B.A.

1. Remove a screw (Z) as shown in Fig. D5, Page 3-9.
2. Disconnect a connector P6001.

2. DISASSEMBLY OF OPTICAL UNIT

2-1. DISASSEMBLY FLOWCHART

This flowchart indicates the disassembly steps of the main parts of Optical Unit. When reassembling, perform the step(s) in the reverse order.

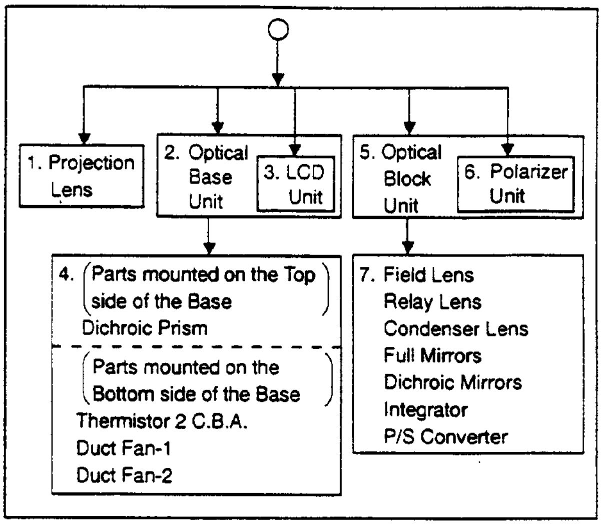

1. Projection Lens
2. Optical Base Unit
3. LCD Unit
5. Optical Block Unit
6. Polarizer Unit
4. (Parts mounted on the Top side of the Base)
Dichroic Prism
(Parts mounted on the Bottom side of the Base)
Thermistor 2 C.B.A.
Duct Fan-1
Duct Fan-2
7. Field Lens
Relay Lens
Condenser Lens
Full Mirrors
Dichroic Mirrors
Integrator
P/S Converter

Fig. O1

2-2. DISASSEMBLY METHOD

1. Removal of the Projection Lens

1. Remove 4 screws (A) to remove the Projection Lens as shown in Fig. O2.

Note:

1. Make sure that no dust gets on the Projection Lens. Clean the Projection Lens with cleaning paper moistened with lens cleaner if necessary.
   (Refer to "Cleaning the Projection Lens", Page 3-5.)

Assembly Note:

1. When assembling the Projection Lens, attach the Zoom Knob so that it faces upward.

2. Removal of the Optical Base Unit

1. Remove 3 screws (B) as shown in Fig. O2.
2. Remove 2 screws (C).
   Optical Base Unit and Optical Block Unit will come off.

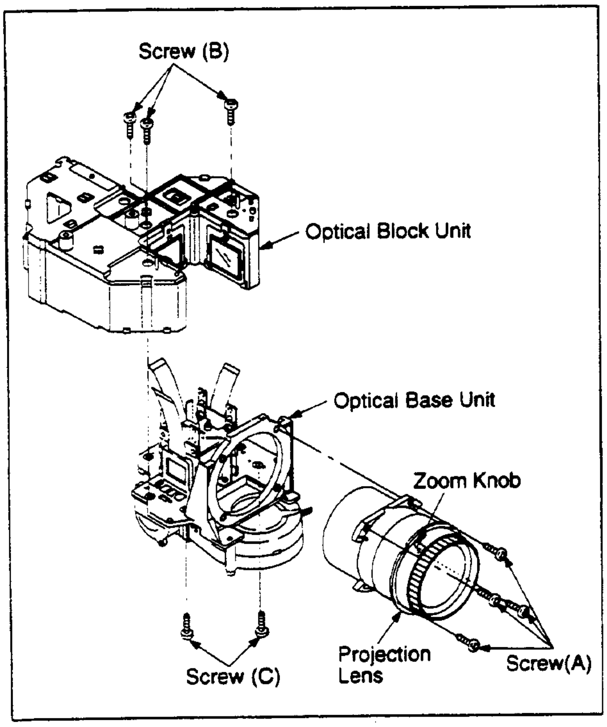

Screw (B)
Optical Block Unit
Optical Base Unit
Zoom Knob
Screw (C)
Projection Lens
Screw(A)

Fig. O2

3. Removal of the LCD Unit (RED/GREEN/BLUE)

- Removal of the LCD Green Unit

1. Remove 2 screws (D) to remove LCD Green Unit as shown in Fig. O3.

- Removal of the LCD Red Unit

1. Remove 3 screws (E) to remove LCD Red Unit as shown in Fig. O3.

- Removal of the LCD Blue Unit

1. Remove 3 screws (F) to remove LCD Blue Unit as shown in Fig. O3.

Note:

1. Make sure that no dust gets on the surface of LCD. Clean the surface of LCD with a cotton swap moistened with ethyl alcohol if necessary.
2. When removal of the LCD Unit, refer to following procedures.
   1) Remove the TOP Cover Unit (Refer to "Removal of the Top Cover Unit", Page 3-7).
   2) Remove the Main C.B.A. (Refer to "Removal of the Main C.B.A.", Page 3-9).
   3) Disconnect 3 connectors P3501, P3502 and P3503 (Refer to "Removal of the LCD Drive C.B.A.", Page 3-9).

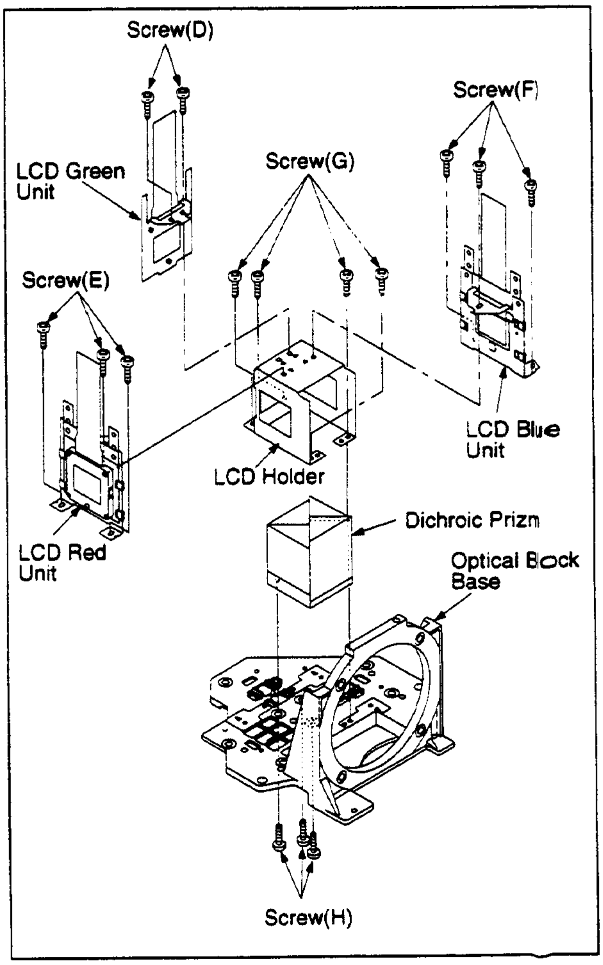

Screw(D)
Screw(F)
LCD Green Unit
Screw(G)
Screw(E)
LCD Blue Unit
LCD Holder
Dichroic Prizm
LCD Red Unit
Optical Block Base
Screw(H)

Fig. O3

Confidential - Do Not Copy

Assembly Notes:

1. Adjustment will be necessary after replacing the LCD Unit (Refer to "1. Initial Guide Line", Page 3-18)
2. When installing the LCD Unit, check the Marks for each Color (Red, Blue), and assemble accordingly.

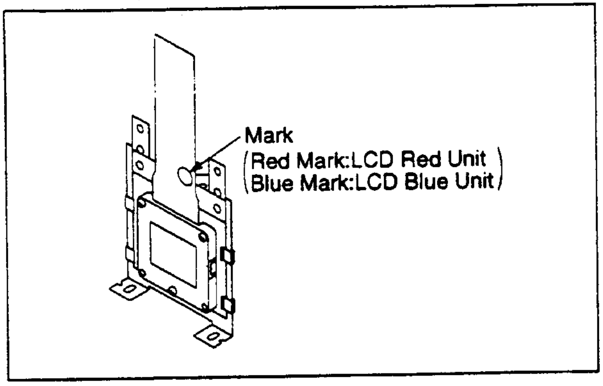

Mark
(Red Mark:LCD Red Unit
Blue Mark:LCD Blue Unit)

Fig. O4

4. Removal of the Dichroic Prism, Thermistor 2 C.B.A., Duct Fan-1 and Duct Fan-2

- Removal of the Dichroic Prism

1. Remove 4 screws (G) to remove LCD Holder as shown in Fig. O3, Page 3-12.
2. Then remove 3 screws (H) to remove the Dichroic Prism.

Note:

1. Make sure that no dust gets on the Dichroic Prism. Clean the Dichroic Prism with cleaning paper moistened with lens cleaner if necessary as shown in Fig. O3, Page 3-12.

- Removal of the Thermistor 2 C.B.A.

1. Remove 4 screws (I) to remove Duct along with Thermistor 2 C.B.A as shown in Fig. O5.
2. Then remove a screw (J) to remove the thermistor 2 C.B.A.

- Removal of the Duct Fan-1

3. Remove 2 screws (K) to remove the Duct Fan-1.

- Removal of the Duct Fan-2

4. Remove 2 screws (L) to remove the Duct Fan-2.

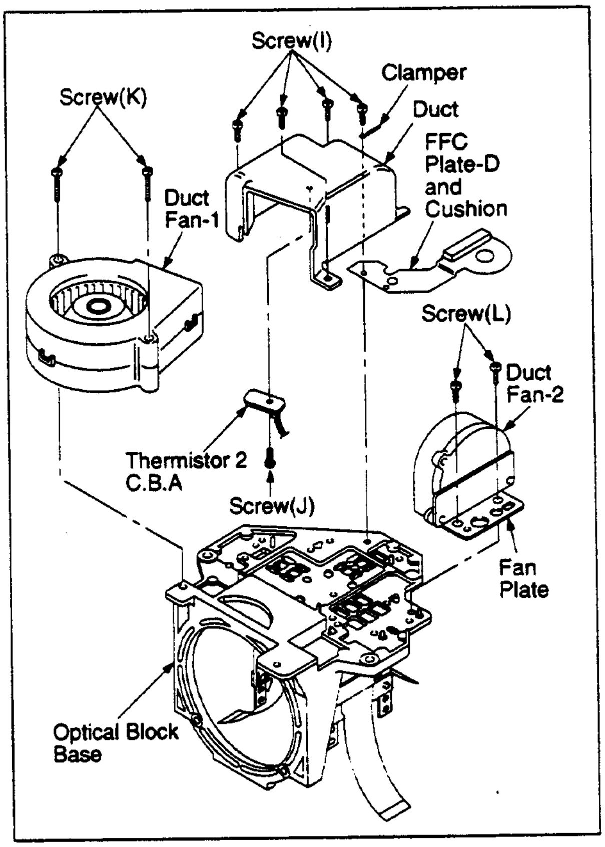

Screw(I)
Clamper
Screw(K)
Duct
FFC Plate-D and Cushion
Duct Fan-1
Screw(L)
Duct Fan-2
Thermistor 2 C.B.A
Screw(J)
Fan Plate
Optical Block Base

Fig. O5

5. Removal of the Optical Block Unit

Refer to "2. Removal of the Optical Base Unit", Page 3-12.

6. Removal of the Polarizer Units

1. Remove 3 screws (M) to remove Polarizer Red Unit, Polarizer Green unit and Polarizer Blue Unit as shown in Fig. O6.

Note:

1. Use extreme care not to damage the Polarizer Units, when servicing.
2. Make sure that no dust gets on the Polarizer Units. Clean the Polarizer Units with cleaning paper moistened with lens cleaner if necessary.

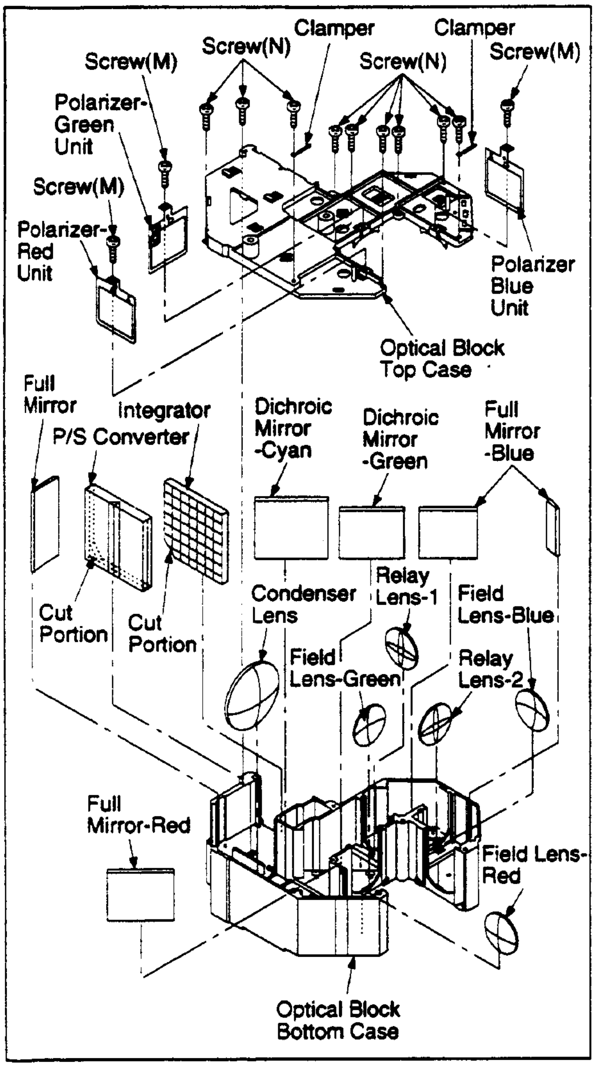

Screw(M)
Screw(N)
Clamper
Clamper
Screw(N)
Screw(M)
Polarizer-Green Unit
Screw(M)
Polarizer-Red Unit
Polarizer Blue Unit
Optical Block Top Case
Full Mirror
Integrator
P/S Converter
Dichroic Mirror -Cyan
Dichroic Mirror -Green
Full Mirror -Blue
Cut Portion
Cut Portion
Condenser Lens
Relay Lens-1
Field Lens-Blue
Field Lens-Green
Relay Lens-2
Full Mirror-Red
Field Lens-Red
Optical Block Bottom Case

Fig. O6

Assembly Note:

1. After replacing the Polarizer Unit, adjustment is necessary (Refer to "1. Initial Guide Line", Page 3-18).
2. When installing the Polarizer to the Polarizer Adjuster, make sure that the mark on the Polarizer is positioned as shown in Fig. O7.
3. Make sure of the Mark color to distinguish the Polarizer Unit (Red, Green, Blue).

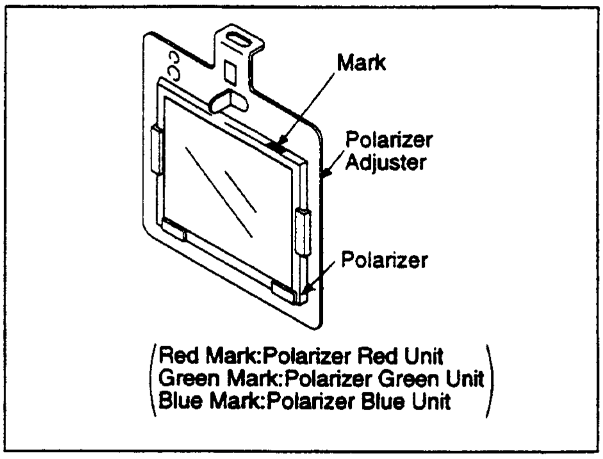

Mark
Polarizer Adjuster
Polarizer
Red Mark:Polarizer Red Unit
Green Mark:Polarizer Green Unit
Blue Mark:Polarizer Blue Unit

Fig. O7

7. Removal of the Field Lens, the Relay Lens, the Condenser Lens, the Full Mirrors, the Dichroic Mirrors, the Integrator and the P/S Converter

1. Remove 9 screws (N) as shown in Fig. O6.
2. Lift up the Optical Block Top Case and remove.
3. Carefully pull out the Field Lens, the Replay Lens, the Condenser Lens, the Full Mirrors, the Dichroic Mirrors, the Integrator and the P/S Converter.

Note:

1. Use extreme care not to damage the optical components such as Mirrors, and Lens etc., when servicing.
2. Make sure that no dust gets on the optical components. Clean the optical components with cleaning paper moistened with lens cleaner if necessary.
3. Be careful when lifting up the Optical Block TopCase as Mirrors may come off along with it.

Assembly Note:

1. After replacing the Integrator and Full Mirror-Blue, adjustments are necessary (Refer to "1. Initial Guide Line", Page 3-18).
2. When mounting the inside components (the Field Lens, the Relay Lens, the Condenser Lens, the Full Mirrors, the Dichroic Mirrors, the Integrator and the P/S Converter), be sure to mount them in the correct position (refer to Fig. O6 and Fig. O8).

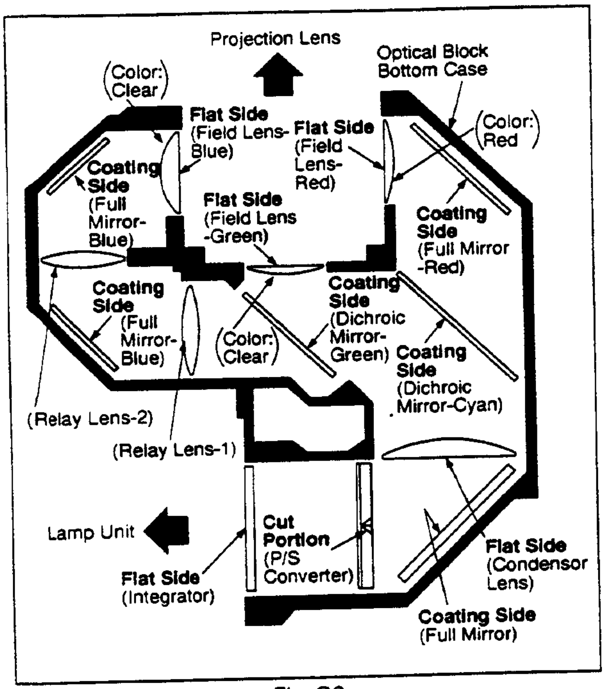

Projection Lens
Optical Block Bottom Case
(Color: Clear)
Flat Side (Field Lens-Blue)
Flat Side (Field Lens-Red)
(Color: Red)
Coating Side (Full Mirror-Blue)
Flat Side (Field Lens -Green)
Coating Side (Full Mirror -Red)
Coating Side (Full Mirror-Blue)
(Color: Clear)
Coating Side (Dichroic Mirror-Green)
Coating Side (Dichroic Mirror-Cyan)
(Relay Lens-2)
(Relay Lens-1)
Lamp Unit
Cut Portion (P/S Converter)
Flat Side (Integrator)
Flat Side (Condensor Lens)
Coating Side (Full Mirror)

Fig. O8

3. To distinguish Field Lens-Red from Field Lens-Green, put the Field Lens on white paper (Flat Side facing down). Color is visible when viewed from the top.
4. To distinguish the coating side from the other side of Full Mirror, put the Full Mirror on the paper.
   When you can see through to the bottom side of the Mirror when viewing at an angle, the bottom side is the coating side.
5. Before installing the optical Block Top Case to the Optical Block Bottom Case, make sure that 10 springs are installed to the Optical Block Top Case as shown in Fig. O9.

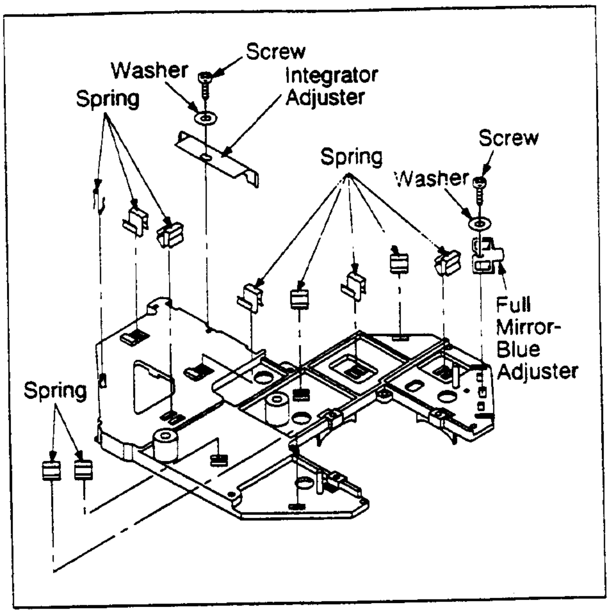

Washer
Screw
Integrator Adjuster
Spring
Screw
Spring
Washer
Full Mirror-Blue Adjuster
Spring

Fig. O9

3. DISASSEMBLY OF MAIN POWER UNIT

3-1. DISASSEMBLY FLOWCHART

This flowchart indicate the disassembly steps of the main parts of main power unit. When reassembling, perform the step(s) in the reverse order.

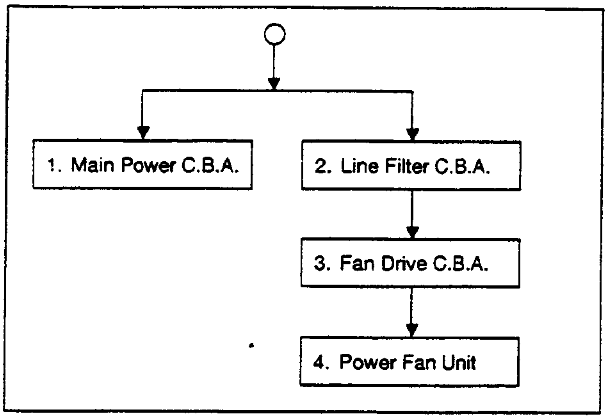

1. Main Power C.B.A.
2. Line Filter C.B.A.
3. Fan Drive C.B.A.
4. Power Fan Unit

Fig. P1

3-2. DISASSEMBLY METHOD

1. Removal of the Main Power C.B.A.

1. Remove the Ballast Barrier-C as shown in Fig. P2.
2. Remove 6 screws (A) to remove Main Power C.B.A. along with Ballast Plate-B.
3. Disconnect 3 connectors P1802 and P1201 on Main Power C.B.A. and P1805 on the Fan Drive C.B.A.
4. Remove 2 screws (B).
5. Unlock 4 locking portions ⓐ.

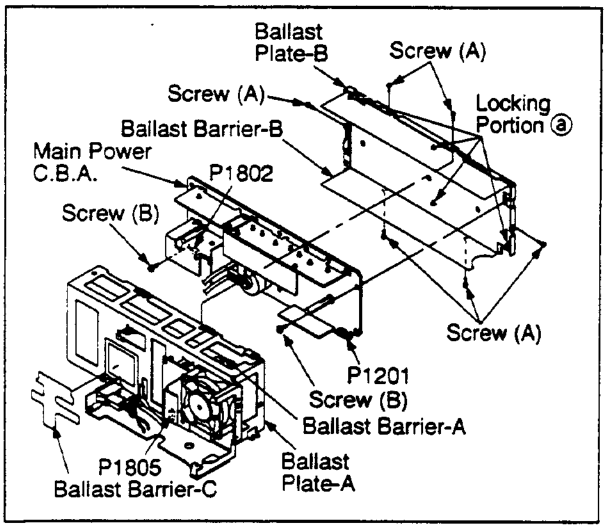

Ballast Plate-B
Screw (A)
Screw (A)
Locking Portion ⓐ
Ballast Barrier-B
Main Power C.B.A.
P1802
Screw (B)
Screw (A)
P1201
Screw (B)
Ballast Barrier-A
P1805
Ballast Barrier-C
Ballast Plate-A

Fig. P2

Assembly Notes:

1. Make sure that Ballast Barrier-B are positioned under the Ballast Barrier-A as shown in Fig. P3.
2. Make sure that the portions indicated by the slanted lines on the Ballast Barrier-C are positioned under the Ballast Plate-A.
3. Make sure that all cables and leads are placed in their original position.

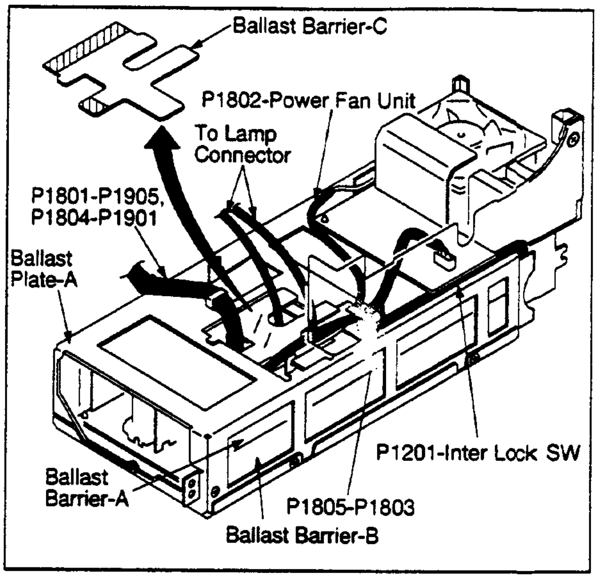

Ballast Barrier-C
P1802-Power Fan Unit
To Lamp Connector
P1801-P1905, P1804-P1901
Ballast Plate-A
P1201-Inter Lock SW
Ballast Barrier-A
P1805-P1803
Ballast Barrier-B

Fig. P3

2. Removal of the Line Filter C.B.A.

1. Remove 2 screws (C) to remove the Line Filter C.B.A. from Ballast Plate-A as shown in Fig. P4.
2. Disconnect P1201 cables (2 pins) from Inter Lock SW terminals.

Note:

1. Remove the cables from Inter Lock SW terminals while pushing 2 Locking Tabs ⓐ to release as shown in Fig. P4.

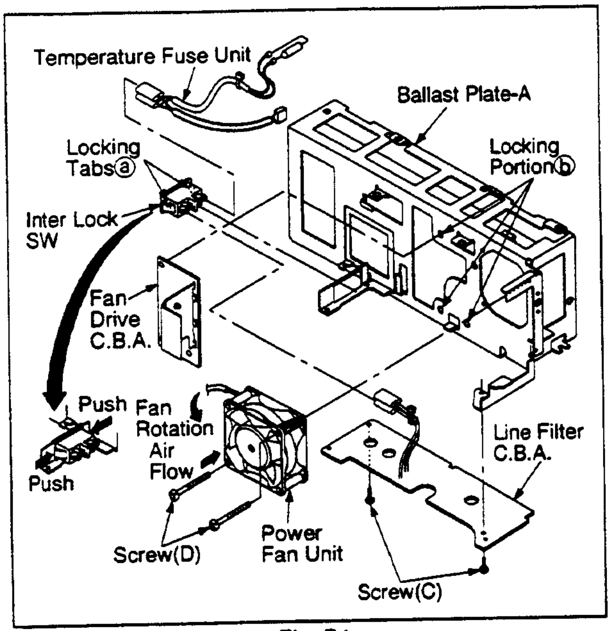

Temperature Fuse Unit
Ballast Plate-A
Locking Tabsⓐ
Locking Portionⓑ
Inter Lock SW
Fan Drive C.B.A.
Push
Fan Rotation
Air Flow
Push
Line Filter C.B.A.
Screw(D)
Power Fan Unit
Screw(C)

Fig. P4

Assembly Note:

1. Install cables to Inter Lock SW terminals properly as shown in Fig. P5.

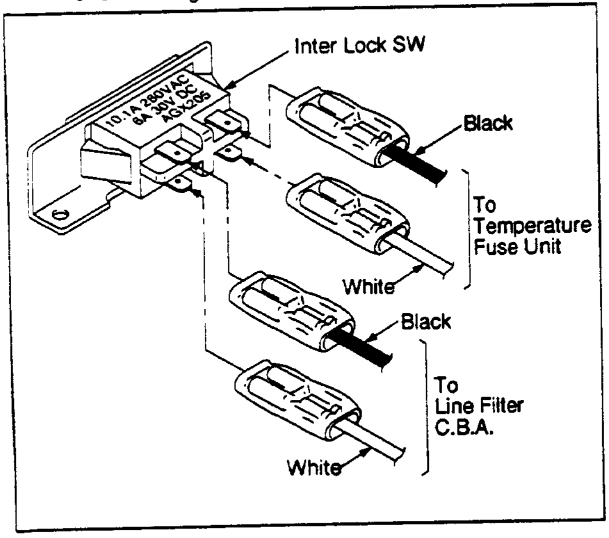

Inter Lock SW
10.1A 280VAC
8A 30V DC
AGX205
Black
To Temperature Fuse Unit
White
Black
To Line Filter C.B.A.
White

Fig. P5

3. Removal of the Fan Drive C.B.A.

1. Unlock 3 locking portions ⓑ to remove the Fan Drive C.B.A. as shown in Fig. P4.

4. Removal of the Power Fan Unit

1. Remove 2 screws (D) to remove the Power Fan unit as shown in Fig. P4.

Assembly Notes:

1. Install the Power Fan Unit, so that the name plate (manufacture's name etc.) faces in (not visible from the outside) as shown in Fig. P4.
2. The fan rotation direction and air flow direction are indicated with arrow.

ADJUSTMENT PROCEDURES

1. INITIAL GUIDE LINE

The tables below show adjustments which will be necessary according to the unit parts and optical parts to be replaced. Make sure to perform these adjustments shown below as necessary .

If you replace:	Adjustments
LCD DRIVE C.B.A.	1, 2, 3
LCD UNIT	1, 2, 3, 4, 5, 6, 7
POLARIZER	8
INTEGRATOR	9, (10)
FULL MIRROR-BLUE **(NOTE3)**	(9), 10
MAIN C.B.A. / VIDEO C.B.A.	(3)

List of necessary adjustments
1. LCD COMMON ADJUSTMENT
2. BLACK & WHITE LEVEL ADJUSTMENT
3. WHITE BALANCE ADJUSTMENT
4. GREEN FOCUS ADJUSTMENT
5. RED FOCUS ADJUSTMENT
6. BLUE FOCUS ADJUSTMENT
7. LCD CONVERGENCE ADJUSTMENT
8. POLARIZER ADJUSTMENT
9. INTEGRATOR ADJUSTMENT
10. FULL MIRROR-BLUE ADJUSTMEN

Notes:

1. ( ) : Items which need the confirmation when replaced.
2. Once the Optical Block Top Case Unit is removed, confirm that color uniformity is achieved over the screen as described in "9. Integrator Adjustment" and "10. Full Mirror-Blue adjustment" procedures.
3. When the full mirror-blue shown in Fig. I1 is replaced, "10 Full Mirror-blue adjustment" is necessary.
4. The table below shows what adjustments are necessary according to the LCD Unit to be replaced.

If you replace:	Necessary adjustment				
	Green Focus Adjustment	Blue Focus Adjustment	Red Focus Adjustment	R-G Convergence Adjustment **Note 5**	B-G Convergence Adjustment **Note 5**
LCD Green Unit	○	○	○	○	○
LCD Blue Unit		○			○
LCD Red Unit			○	○	

5. Adjust LCD Red Unit for R-G Convergence Adjustment.
   Adjust LCD Blue Unit for B-G Convergence Adjustment.
   LCD Green Unit is fixed for reference for convergence adjustment.

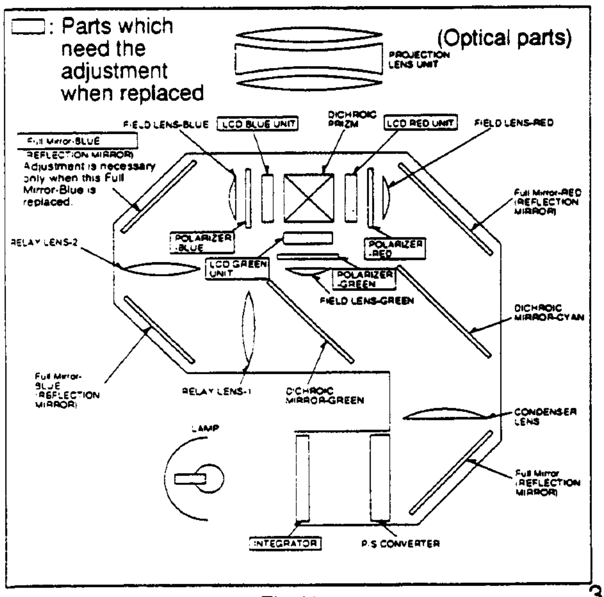

▭: Parts which need the adjustment when replaced
(Optical parts)
PROJECTION LENS UNIT
FIELD LENS-BLUE
LCD BLUE UNIT
DICHROIC PRIZM
LCD RED UNIT
FIELD LENS-RED
Full Mirror-BLUE
REFLECTION MIRROR)
Adjustment is necessary only when this Full Mirror-Blue is replaced.
Full Mirror-RED (REFLECTION MIRROR)
RELAY LENS-2
POLARIZER -BLUE
POLARIZER -RED
LCD GREEN UNIT
POLARIZER -GREEN
FIELD LENS-GREEN
DICHROIC MIRROR-CYAN
Full Mirror-BLUE (REFLECTION MIRROR)
RELAY LENS-1
DICHROIC MIRROR-GREEN
CONDENSER LENS
LAMP
Full Mirror (REFLECTION MIRROR)
INTEGRATOR
P.S CONVERTER

Fig. I1

2. TEST EQUIPMENT

Note:
When any adjustment 13 through 23 necessary, please refer to "Preparation for Adjustments 13 through 23", Page 3-28.

To do all of these adjustments, the following equipment is required.

1. Dual-Trace Oscilloscope
   Voltage Range : 0.001~50V/Div.
   Frequency Range : DC~50MHz
   Probes : 10:1, 1:1
2. NTSC Video Pattern Generator
3. Plastic Tip Driver and Non-Metal Driver
4. Hexagon Wrench (2.5mm)
5. Standard Screen
6. DVM (Digital Volt Meter)
7. SECAM Video Pattern Generator
8. Test pattern signal (not supplied)

3. HOW TO READ THE ADJUSTMENT PROCEDURES

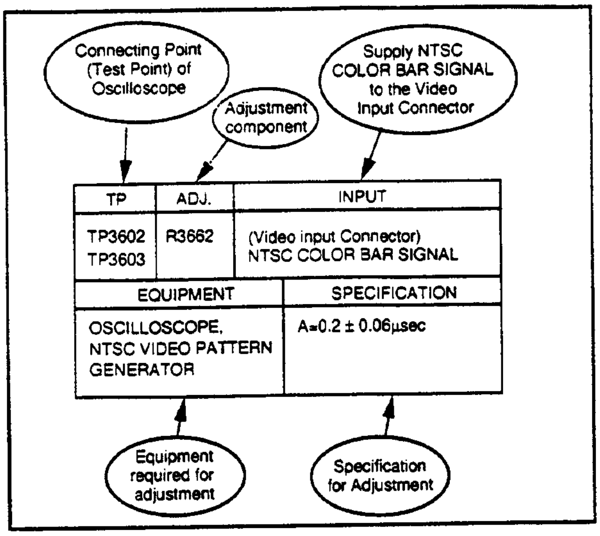

Connecting Point (Test Point) of Oscilloscope
Adjustment component
Supply NTSC COLOR BAR SIGNAL to the Video Input Connector
TP
ADJ.
INPUT
TP3602
TP3603
R3662
(Video input Connector) NTSC COLOR BAR SIGNAL
EQUIPMENT
SPECIFICATION
OSCILLOSCOPE, NTSC VIDEO PATTERN GENERATOR
A=0.2 ± 0.06μsec
Equipment required for adjustment
Specification for Adjustment

Fig. E1

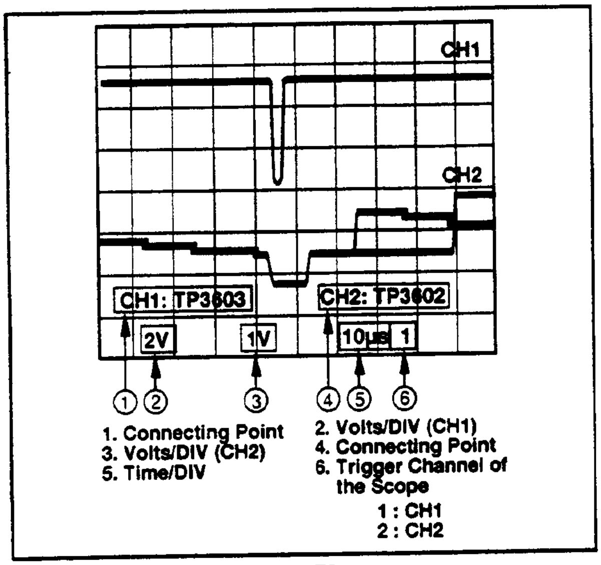

CH1
CH2
CH1: TP3603
CH2: TP3602
2V
1V
10μs
1
①
②
③
④
⑤
⑥
1. Connecting Point
3. Volts/DIV (CH2)
5. Time/DIV
2. Volts/DIV (CH1)
4. Connecting Point
6. Trigger Channel of the Scope
1 : CH1
2 : CH2

Fig. E2

4. ADJUSTMENT PROCEDURES

1. LCD COMMON ADJUSTMENT

Purpose:
To set the optimum LCD common voltage.
Symptom of Misadjustment:
The picture will be bluish or reddish.

TP	ADJ.	INPUT
	R3700 R3720 R3740 R3542	(RGB Input Connector) 70% Red Horizontal Signal 70% Green Horizontal Signal 70% Blue Horizontal Signal

EQUIPMENT	SPECIFICATION
TEST PATTERN SIGNAL	Refer to Description below

Note:
R3700, R3720, R3740, R3542: LCD Drive C.B.A.

1) Supply 70% Red Horizontal Signal and project on the screen.
2) Adjust R3700 (RED LCD COMMON) so that the flicker over the whole screen becomes minimal.

Note:
When no flicker appears on the screen in step 1), turn R3542 (BLACK LEVEL) so that it appears.

3) Supply 70% Green Horizontal Signal and project on the screen.
4) Adjust R3720 (GREEN LCD COMMON) so that the flicker over the whole screen becomes the minimul.

Note:
When no flicker appears on the screen in step 3), turn R3542 (BLACK LEVEL) so that it appears.

5) Supply 70% Blue Horizontal Signal and project on the screen.
6) Adjust R3740 (BLUE LCD COMMON) so that the flicker over the whole screen becomes the minimul.

Note:
When no flicker appears on the screen in step 5), turn R3542 (BLACK LEVEL) so that it appears.

2. BLACK & WHITE LEVEL ADJUSTMENT

Purpose:
To set the optimum signal level.
Symptom of Misadjustment:
The picture will be too dark or too light.

TP	ADJ.	INPUT
	R3542 R3520	(RGB Input Connector) GREEN SCALE PATTERN SIGNAL (32 scales)

EQUIPMENT	SPECIFICATION
TEST PATTERN SIGNAL	Refer to Description below

Note:
R3542, R3520: LCD Drive C.B.A.

BLACK LEVEL ADJUSTMENT

1. Adjust R3542 (BLACK LEVEL) so that the borders of the 2nd and 3rd scale (Portion Ⓐ) start to become visible as shown in Fig. E3.

WHITE LEVEL ADJUSTMENT

1. Adjust R3520 (CONTRAST GREEN) so that the borders of 31st and the 32nd scale (Portion Ⓑ) start to disappear as shown in Fig. E3.

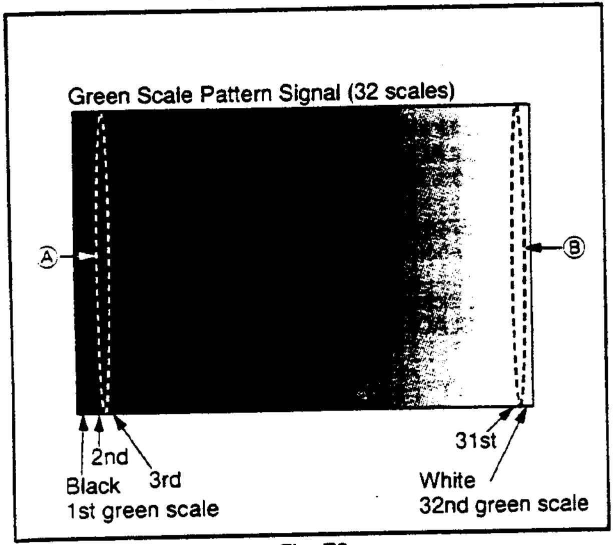

Green Scale Pattern Signal (32 scales)
Ⓐ
Ⓑ
2nd
Black
3rd
1st green scale
31st
White
32nd green scale

Fig. E3

3. WHITE BALANCE ADJUSTMENT

Purpose:
To set the standard white level for each color temperature.
Symptom of Misadjustment:
White will become bluish or reddish.

(SETUP)
Reset the picture control levels to the factory -set levels.

TP	ADJ.	INPUT
	R3509 R3531 R3546 R3548	(Video Input Connector) GRAY SCALE PATTERN SIGNAL (10 scales),

EQUIPMENT	SPECIFICATION
NTSC VIDEO PATTERN GENERATOR	Refer to Description below

Note:
R3509, R3531, R3546, R3548 : LCD Drive C.B.A.

1) Supply Gray Scale Pattern Signal (10 scales) and Project on the screen.

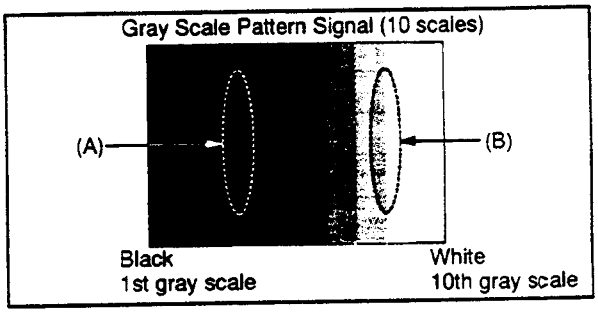

Gray Scale Pattern Signal (10 scales)
(A)
(B)
Black
1st gray scale
White
10th gray scale

Fig. E4

2) Adjust R3546 (BLUE BRIGHTNESS) and R3548 (RED BRIGHTNESS) so that the area around 3rd and 4th scale (A) is pure gray with no red or blue tint as shown in Fig. E4.
3) Adjust R3531 (BLUE CONTRAST) and R3509 (RED CONTRAST) so that the area around the 7th and 8th scale (B) is pure gray with no red or blue tint as shown in Fig. E4.

4. GREEN FOCUS ADJUSTMENT

Purpose:
To set the focus over the whole screen.
Symptom of Misadjustment:
The picture will be out of focus.

TP	ADJ.	INPUT
	LCD GREEN UNIT	(RGB Input Connector) GREEN CROSSHATCH PATTERN SIGNAL

EQUIPMENT	SPECIFICATION
TEST PATTERN SIGNAL	Refer to Description below

1. Supply Crosshatch Pattern Signal and project on the screen.
2. Rotate the zoom ring on the projection lens to the wide setting.
3. Rotate the focus ring and adjust the focus on the upper center of the screen (Portion ①) as shown in Fig. E5.
4. Loosen screws Ⓐ and Ⓑ of LCD Green Unit.
5. Insert a (-) screwdriver into Portion ⓐ and twist it to adjust the focus on the lower right portion of the screen (Portion ②).
   After adjusting, slightly tighten screw Ⓐ.
6. Insert a (-) screwdriver into Portion ⓑ and twist it to adjust the lower left portion of the screen (Portion ③).
   After adjusting, slightly tighten screw Ⓑ.
7. Confirm that the upper portion of the screen (Portion ①) is in focus. If it is out of focus, repeat steps 3 through 6.
8. Confirm that the whole screen is in focus, and then tighten screws Ⓐ and Ⓑ.

Note: Do not rotate the focus ring which is set in step (3) until both Blue and Red focus adjustment are complete.

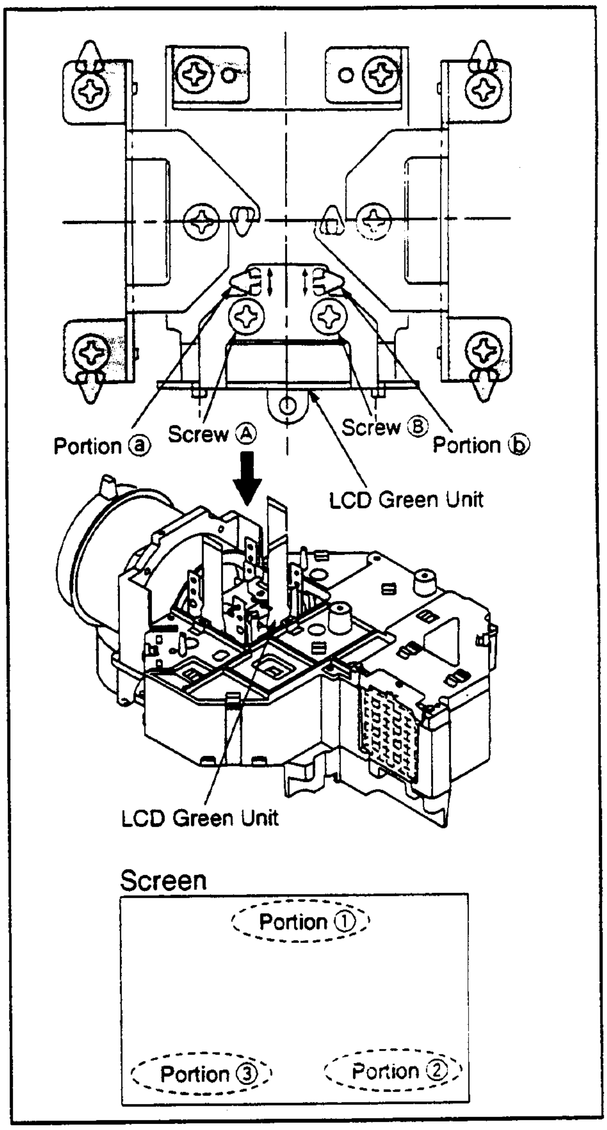


Fig. E5

5. RED FOCUS ADJUSTMENT

Purpose:
To set the focus over the whole screen.
Symptom of Misadjustment:
The picture will be out of focus.

TP	ADJ.	INPUT
	LCD RED UNIT	(RGB Input Connector) RED CROSSHATCH PATTERN SIGNAL

EQUIPMENT	SPECIFICATION
TEST PATTERN SIGNAL	Refer to Description below

Set Up
1) If you replace LCD Red Unit, perform
   - Supply Green Crosshatch Pattern Signal and project on the screen.
   - Rotate the focus ring and adjust the focus on the whole screen.

1. Supply Crosshatch Pattern Signal and project on the screen.
2. Loosen screws Ⓐ, Ⓑ and Ⓒ of LCD Red Unit as shown in Fig. E6.
3. Insert a (-) screwdriver into Portion ⓐ and twist it to adjust the focus on the lower center portion of the screen (Portion ①).
   After adjusting, slightly tighten screw Ⓐ.
4. Insert a (-) screwdriver into Portion ⓑ and twist it to adjust the upper right portion of the screen (Portion ②).
   After adjusting, slightly tighten screw Ⓑ.
5. Insert a (-) screwdriver into Portion ⓒ and twist it to adjust the upper left portion of the screen (Portion ③).
   After adjusting, slightly tighten screw Ⓒ.
6. Confirm that the lower portion of the screen (Portion ①) is in focus. If it is out of focus repeat steps 3 through 5.
7. Confirm that the whole screen is in focus and then tighten screws Ⓐ, Ⓑ and Ⓒ.

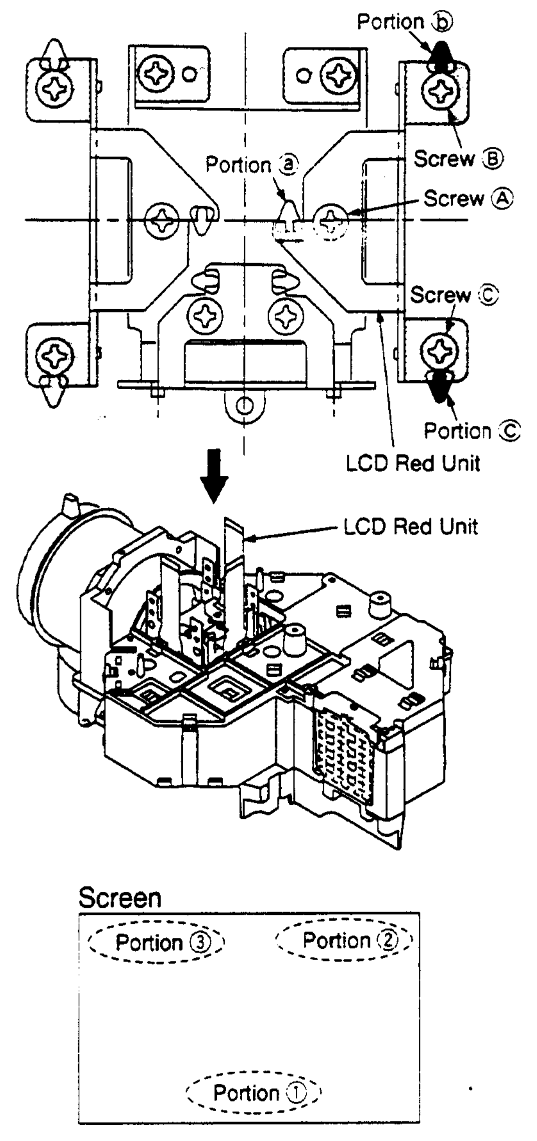


Fig. E6

6. BLUE FOCUS ADJUSTMENT

Purpose:
To set the focus over the whole screen.
Symptom of Misadjustment:
The picture will be out of focus.

TP	ADJ.	INPUT
	LCD BLUE UNIT	(RGB Input Connector) BLUE CROSSHATCH PATTERN SIGNAL

EQUIPMENT	SPECIFICATION
TEST PATTERN SIGNAL	Refer to Description below

Set Up

1) If you replace LCD Blue Unit, perform
   - Supply Green Crosshatch Pattern Signal and project on the screen.
   - Rotate the focus ring and adjust the focus on the whole screen.

1. Supply Crosshatch Pattern Signal and project on the screen.
2. Loosen screws Ⓐ, Ⓑ and Ⓒ of LCD Blue Unit as shown in Fig. E7.
3. Insert a (-) screwdriver into Portion ⓐ and twist it to adjust the focus on the lower center portion of the screen (Portion ①).
   After adjusting, slightly tighten screw Ⓐ.
4. Insert a (-) screwdriver into Portion ⓑ and twist it to adjust the upper right portion of the screen (Portion ②).
   After adjusting, slightly tighten screw Ⓑ.
5. Insert a (-) screwdriver into Portion ⓒ and twist it to adjust the upper left portion of the screen (Portion ③).
   After adjusting, slightly tighten screw Ⓒ.
6. Confirm that the lower portion of the screen (Portion ①) is in focus. If it is out of focus repeat steps 3 through 5.
7. Confirm that the whole screen is in focus and then tighten screws Ⓐ, Ⓑ and Ⓒ.

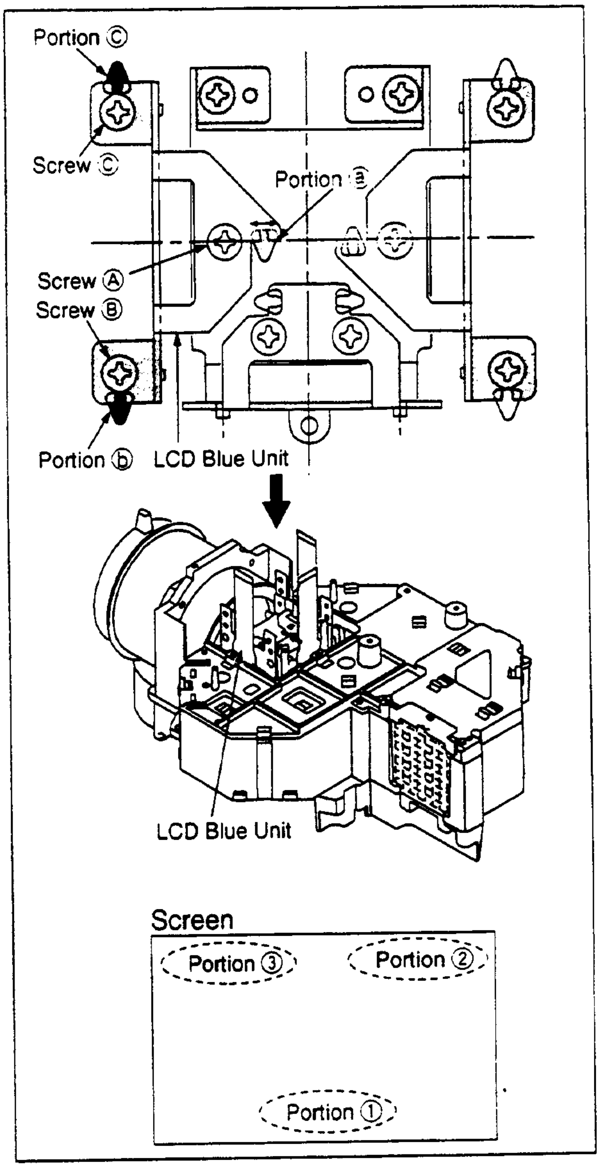


Fig. E7

7. LCD CONVERGENCE ADJUSTMENT

Purpose:
To set the uniform convergence over the whole screen.
Symptom of Misadjustment:
The convergence on the screen will vary.

TP	ADJ.	INPUT
	LCD BLUE UNIT LCD RED UNIT	(RGB Input Connector) CROSSHATCH PATTERN SIGNAL

EQUIPMENT	SPECIFICATION
TEST PATTERN SIGNAL	Refer to Description below

1. Supply Crosshatch Pattern Signal and project on the screen.
2. (R-G Adjustment)
   Loosen 2 Hexagon screws (A) of LCD Red Unit as shown in Fig. E8-1.
   Grasp the Adjust Plate ⓐ (Fig. E8-1) and move the plate so that the Red line exactly overlaps the Green line as shown in Fig. E8-2.

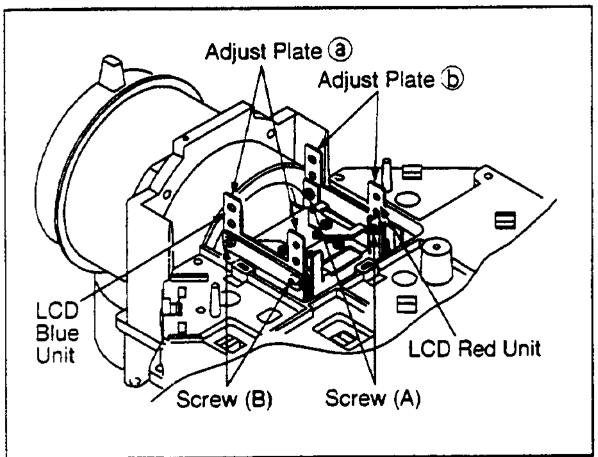

Adjust Plate ⓐ
Adjust Plate ⓑ
LCD Blue Unit
LCD Red Unit
Screw (B)
Screw (A)

Fig. E8-1

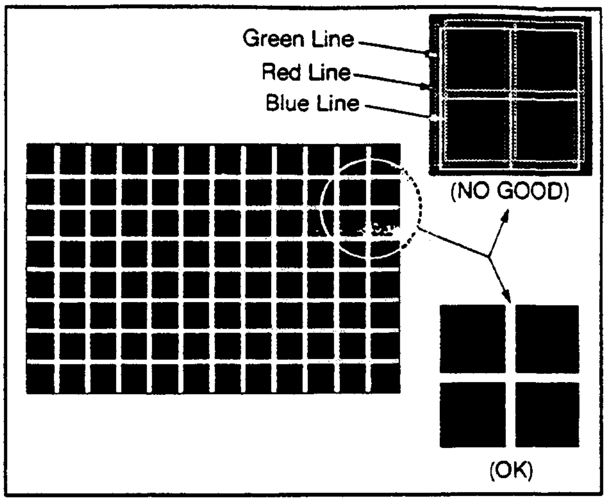

Green Line
Red Line
Blue Line
(NO GOOD)
(OK)

Fig. E8-2

3. (B-G Adjustment)
   Loosen 2 Hexagon screws (B) of LCD Blue Unit as shown in Fig. E8-1.
   Grasp the Adjust Plate ⓑ (Fig. E8-1) and move the plate so that the Blue line exactly overlaps the Green line as shown in Fig. E8-2.
4. Tighten Hexagon Screws (A) and Screws (B).

Note:
Use a Hexagon Wrench (2.5 mm) for Hexagon screw (A) and screw (B).

8. POLARIZER ADJUSTMENT

Purpose:
To set the Polarizer in proper position.
Symptom of Misadjustment:
The picture will become bluish or reddish or greenish.

TP	ADJ.	INPUT
	POLARIZER-RED POLARIZER-GREEN POLARIZER-BLUE	(RGB Input Connector) BLACK SIGNAL

EQUIPMENT	SPECIFICATION
TEST PATTERN SIGNAL	Refer to Description below

1. POLARIZER-RED ADJUSTMENT
   1) Disconnect the flexible cable of the LCD Green Unit and the LCD Blue Unit and shut out the light completely for the G and B light paths. (Insert a paper in the gap between the LCD Unit and the Polarizer Unit).
   2) Reconnect the flexible cables of the LCD Green unit and LCD Blue unit in order to prevent them from touching any parts on the LCD Drive C.B.A. etc.
   3) Supply Black Signal and project on the screen.
   4) Loosen Screw (A) of Polarizer-Red Unit as shown in Fig. E9.
   5) Move the Polarizer-Red Unit to the right and left so that the whole screen becomes the blackest possible value, and then tighten Screw (A).

2. POLARIZER-GREEN ADJUSTMENT
   1) Disconnect the flexible cable of the LCD Red Unit and the LCD Blue Unit and shut out the light completely for the R and B light paths. (Insert a paper in the gap between the LCD Unit and the Polarizer Unit).
   2) Reconnect the flexible cables of the LCD Red unit and LCD Blue unit in order to prevent them from touching any parts on the LCD Drive C.B.A. etc.
   3) Supply Black Signal and project on the screen.
   4) Loosen Screw (B) of Polarizer-Green Unit as shown in Fig. E9.
   5) Move the Polarizer-Green Unit to the right and left so that the whole screen becomes the blackest possible value, and then tighten Screw (B).

3. POLARIZER-BLUE ADJUSTMENT
   1) Disconnect the flexible cable of the LCD Red Unit and the LCD Green Unit and shut out the light completely for the R and G light paths. (Insert a paper in the gap between the LCD Unit and the Polarizer Unit).
   2) Reconnect the flexible cables of the LCD Red unit and LCD Green unit in order to prevent them from touching any parts on the LCD Drive C.B.A. etc.
   3) Supply Black Signal and project on the screen.
   4) Loosen Screw (C) of Polarizer-Blue Unit as shown in Fig. E9.
   5) Move the Polarizer-Blue Unit to the right and left so that the whole screen becomes the blackest possible value, and then tighten Screw (C).

Note:
Extension Cable-1 is recommended to use for easy access to screw (A), (B), (C).

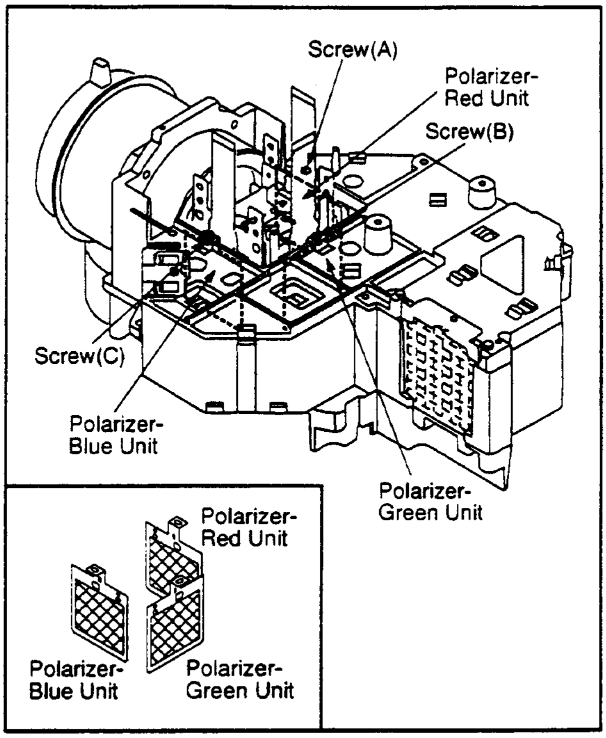


Fig. E9

9. INTEGRATOR ADJUSTMENT

Purpose:
To set the Integrator in the proper position.
Symptom of Misadjustment:
The non-uniformity color will appear.

TP	ADJ.	INPUT
	INTEGRATOR	(RGB Input Connector) 100% WHITE SIGNAL

EQUIPMENT	SPECIFICATION
TEST PATTERN SIGNAL	Refer to Description below

1. Disconnect the flexible cable of the LCD Blue Unit and shut out the light completely for the B light path. (Insert a paper in the gap between the LCD Blue Unit and Polarizer).
2. Reconnect the flexible cables of the LCD Blue Unit in order to prevent them from touching any parts on the LCD Drive C.B.A. etc.
3. Supply 100% White Signal and project on the screen The picture becomes yellow.
4. Loosen Screw (A) of the Integrator Adjuster as shown in Fig. E10.
5. Move the Integrator to the left and right while looking at the screen. Set so that color uniformity is achieved over the whole screen, and then tighten screw (A).

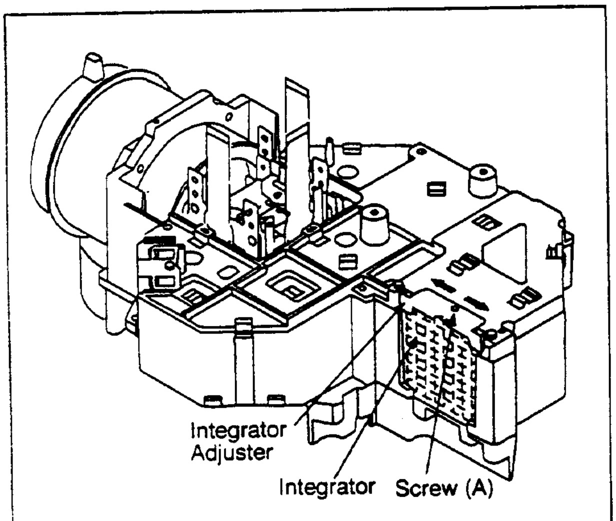


Fig. E10

10. FULL MIRROR-BLUE ADJUSTMENT

Purpose:
To set the Full Mirror-Blue in the proper position.
Symptom of Misadjustment:
The non-uniformity color will appear.

TP	ADJ.	INPUT
	FULL MIRROR -BLUE	(RGB Input Connector) 100% WHITE SIGNAL

EQUIPMENT	SPECIFICATION
TEST PATTERN SIGNAL	Refer to Description below

1. Supply 100% White Signal and project on the screen
2. Loosen Screw (A) of the Full Mirror-Blue Adjuster as shown in Fig. E11.
3. Move the Full Mirror-Blue Adjuster in the direction shown by the arrows so that color uniformity is achieved over the whole screen. And then tighten screw (A).

Rotation: To adjust the right and left sides of the screen.
Back and forth: To adjust the Top and Bottom sides of the screen.

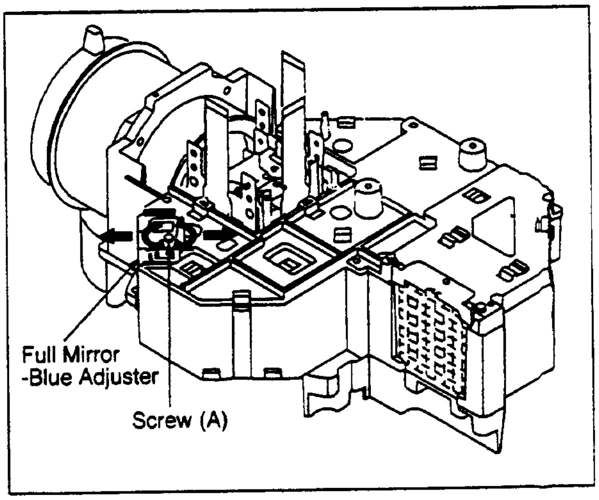


Fig. E11

11. LCD POWER VOLTAGE ADJUSTMENT

Purpose:
To set the standard voltage for LCD panel.
Symptom of Misadjustment:
LCD panel may be damaged.

TP	ADJ.	INPUT
TP1904 TP1907 (GND)	R1917	

EQUIPMENT	SPECIFICATION
DVM (DIGITAL VOLT METER)	15.3 ± 0.1VDC

Note:
TP1904, TP1907, R1917 : Main C.B.A.

1. Connect the DVM (Digital Volt Meter) to TP1904.
2. Adjust R1917 (15.3V ADJ) so that the voltage is at 15.3 ± 0.1VDC.

12. GAMMA CORRECTION ADJUSTMENT

Purpose:
To set the optimum gamma correction.
Symptom of Misadjustment:
The signal linearity be worse.

TP	ADJ.	INPUT
TP3303 TP3304 TP3305 TP3306		(RGB Input Connector) GRAY SCALE PATTERN SIGNAL (16 scales)

EQUIPMENT	SPECIFICATION
OSCILLOSCOPE	A = 0 ± 0.01Vp-p B = 1.30 ± 0.05Vp-p C = 1.10 ± 0.02Vp-p D = 0.55 ± 0.02Vp-p E = 0 ± 0.02Vp-p

Note:
TP3303, TP3304, TP3305, TP3306: Main C.B.A.

(SETUP)

1. Reset the BRIGHTNESS and PICTURE to the factory-set levels as follows:
   1) Press INPUT button on the LCD Projector or remote control to select the RGB mode. Then press MODE button to select the MODE 1.
   2) Press MENU button to display the MENU screen.
   3) Press "V" or "Λ" button to select the RGB ADJUST mode.
   4) Press " > " and " < " button together to reset to standard settings.
2. Connect a jumper wire between TP6015 and TP6016 on Main C.B.A. for over 5 Seconds to set to FACTORY ADJUST mode.

1. Connect the oscilloscope to TP3303. Use TP3513 as a trigger.
2. Press "V" or "Λ" button on the LCD Projector or remote control to select "G BRIGHT" in the FACTORY ADJUST overlay.
3. Press " > " or " < " button so that level A becomes 0±0.01 Vp-p.
4. Press "V" or "Λ" button on the LCD Projector or remote control to select "PICTURE" in the FACTORY ADJUST overlay.
5. Press " >" or " < " button so that level B becomes 1.30±0.05 Vp-p.

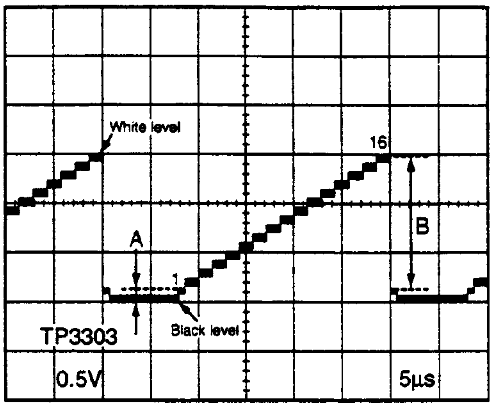


Fig. E12-1

6. Connect the oscilloscope to TP3306. Use TP3513 as a trigger.
7. Press "V" or "Λ" button on the LCD Projector or remote control to select "BLACK GAMMA" in the FACTORY ADJUST overlay.
8. Press " > " or " < " button so that level C becomes 1.10± 0.02 Vp-p.
9. Press "V" or "Λ" button on the LCD Projector or remote control to select "WHITE GAMMA" in the FACTORY ADJUST overlay.
10. Press " > " or " < " button so that level D becomes 0.55± 0.02 Vp-p.

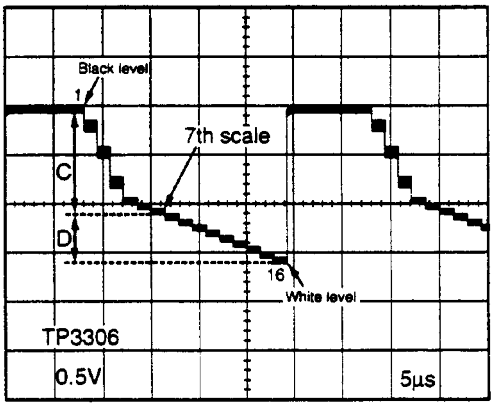


Fig. E12-2

11. Connect the oscilloscope to TP3305. Use TP3513 as a trigger.
12. Press "V" or "Λ" button on the LCD Projector or remote control to select "B BRIGHT" in the FACTORY ADJUST overlay.
13. Press " > " or " < " button so that level E becomes 0± 0.02 Vp-p.
14. Press "V" or "Λ" button on the LCD Projector or remote control to select "B LEVEL" in the FACTORY ADJUST overlay.
15. Press " > " or " < " button so that a level of C+D becomes as same as shown in Fig. E12-2.

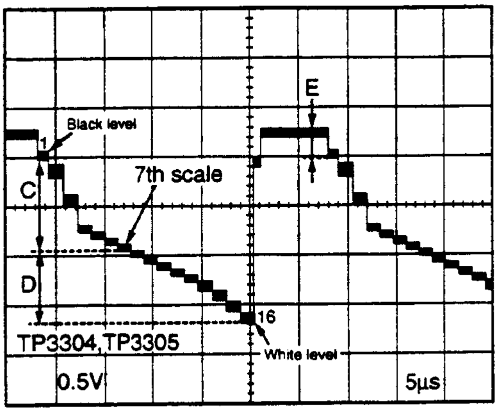


Fig. E12-3

16. Connect the oscilloscope to TP3304. Use TP3513 as a trigger.
17. Press "V" or "Λ" button on the LCD Projector or remote control to select "R BRIGHT" in the FACTORY ADJUST overlay.
18. Press " > " or " < " button so that level E becomes 0+ 0.02 Vp-p as shown in Fig. E12-3.
19. Press "V" or "Λ" button on the LCD Projector or remote control to select "R LEVEL" in the FACTORY ADJUST overlay.
20. Press " > " or " < " button so that a level of C+D becomes as same as shown in Fig. E12-2.

Note:
After completing all adjustments of Gamma Correction adjustment, press the **MENU** button to memorize adjustment data in **EEPROM IC** on Main C.B.A. and release from FACTORY ADJUST mode.
Otherwise, adjustment will be cancelled.

Preparation for Adjustments 13 through 23

Note:
コウテイモード = Mark for factory set mode.

■If IC5011 (EEPROM IC) on Video C.B.A. is replaced:

After replacing IC5011, be sure to perform each of following steps in the order presented.

1. Connect a jumper wire between TP6011 and TP6012 on Main C.B.A. for over 5 seconds to set to factory set mode. Then, remove the jumper wire.
2. コウテイモード appears on screen.

Caution:
Do not short-circuit TP6011 and TP6012 again, while コウテイモード appears on screen.
Otherwise, memory, such as history of lamp operation time, of EEPROM IC's (IC6002, IC6005) is reset.

3. Connect jumper wires between TP6013 and TP6014, TP6015 and TP6016 on Main C.B.A. so that both are connected for over 5 seconds to initialize IC5011 (EEPROM IC).
4. "SELF CHECK" appears on screen.
5. Remove jumper wires and "MEMORY OK" appears on screen.
6. Press the INPUT button to select VIDEO MODE.
7. Connect a jumper wire between TP6015 and TP6016 on Main C.B.A. for over 5 seconds to set to FACTORY ADJUST mode.
8. Perform adjustments 13 through 23 on Page 3-29 ~ 3-34.
9. After completing all adjustments, press the **MENU** button to memorize adjustment data in IC5011 (EEPROM IC) and release from FACTORY ADJUST mode. Otherwise, all adjustments will be cancelled.
10. コウテイモード appears on screen.
11. Press the POWER button (SW6001 on Main C.B.A) in order to release from factory set mode (POWER off).

■If IC5009 (Y/C Signal Process IC) is replaced, or if adjustments are necessary because of other part replacement, etc., perform the following steps:

1. Connect a jumper wire between TP6015 and TP6016 on Main C.B.A. for over 5 seconds to set to FACTORY ADJUST mode.
2. Perform necessary adjustments.
3. After completing adjustments, press the **MENU** button to memorize adjustment data in IC5011 (EEPROM IC) and release from FACTORY ADJUST mode. Otherwise, adjustment will be cancelled.

13. SYNC DET. FREE RUN FREQUENCY ADJUSTMENT

Purpose:
To set the optimum free run frequency for H. SYNC detection.
Symptom of Misadjustment:
The picture will not appear if adjustment has been shift largely.

TP	ADJ.	INPUT
Pin 2 of P5002 or TP3003		(VIDEO Input Connector) NTSC COLOR BAR Y SIGNAL

EQUIPMENT	SPECIFICATION
OSCILLOSCOPE NTSC COLOR BAR GENERATOR	Refer to Descriptions below.

Note:
Pin 2 of P5002 : VIDEO C.B.A.
TP3003 : MAIN C.B.A.

Caution:
Before adjustment, please refer to "Preparation for Adjustments 13 through 23", Page 3-28.

1. Press "V" or "Λ" button on the LCD Projector or remote control to select "SYNC DETECT" in the FACTORY ADJUST overlay.
2. Press " > " or " < " button so that the level of A and B becomes same level.

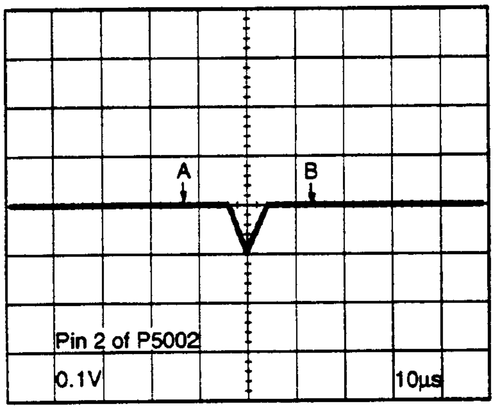


Fig. E13

14. RED SIGNAL LEVEL ADJUSTMENT

Purpose:
To set the optimum signal level.
Symptom of Misadjustment:
The picture will be too dark or too light

TP	ADJ.	INPUT
Pin 30 of P5002 or TP3001		(Video Input Connector) GRAY SCALE PATTERN SIGNAL (10 scales)

EQUIPMENT	SPECIFICATION
OSCILLOSCOPE, NTSC VIDEO PATTERN GENERATOR	A = 2.4 ± 0.03Vp-p B = 0 ± 0.01Vp-p

Note:
Pin 30 of P5002 : VIDEO C.B.A.
TP3001 : MAIN C.B.A.

Caution:
Before adjustment, please refer to "Preparation for Adjustments 13 through 23", Page 3-28.

WHITE LEVEL ADJUSTMENT

1. Press "V" or "Λ" button on the LCD Projector or remote control to select "PICTURE R" in the FACTORY ADJUST overlay.
2. Press " > " or " < " button so that the level A becomes 2.4 ± 0.03Vp-p.

BLACK LEVEL ADJUSTMENT

1. Press "V" or "Λ" button on the LCD Projector or remote control to select "BRIGHT R" in the FACTORY ADJUST overlay.
2. Press " > " or " < " button so that the level B becomes 0 ± 0.01Vp-p.

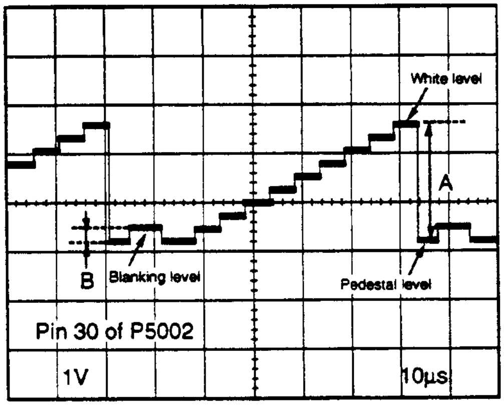


Fig. E14

15. S-VIDEO RED SIGNAL LEVEL ADJUSTMENT

Purpose:
To set the optimum signal level.
Symptom of Misadjustment:
The picture will be too dark or too light.

TP	ADJ.	INPUT
Pin 30 of P5002 or TP3001	/	(S-Video Input Connector) NTSC COLOR BAR SIGNAL

EQUIPMENT	SPECIFICATION
OSCILLOSCOPE, NTSC VIDEO PATTERN GENERATOR	A = 2.4 ± 0.03Vp-p

Note:
Pin 30 of P5002 : VIDEO C.B.A.
TP3001 : MAIN C.B.A.

Caution:
Before adjustment, please refer to "Preparation for Adjustments 13 through 23", Page 3-28.

WHITE LEVEL ADJUSTMENT

1. Press "V" or "Λ" button on the LCD Projector or remote control to select "PICTURE R" in the FACTORY ADJUST overlay.
2. Press " > " or " < " button so that the level A becomes 2.4 ± 0.03Vp-p.

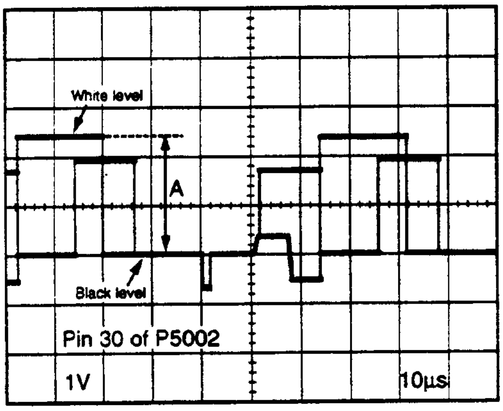


Fig. E15

16. GREEN SIGNAL LEVEL ADJUSTMENT

Purpose:
To set the optimum signal level.
Symptom of Misadjustment:
The picture will be too dark or too light.

TP	ADJ.	INPUT
Pin 28 of P5002 or TP3002	/	(Video Input Connector) GRAY SCALE PATTERN SIGNAL (10 scales)

EQUIPMENT	SPECIFICATION
OSCILLOSCOPE, NTSC VIDEO PATTERN GENERATOR	A = 2.4 ± 0.03Vp-p B = 0 ± 0.01Vp-p

Note:
Pin 28 of P5002 : VIDEO C.B.A.
TP3002 : MAIN C.B.A.

Caution:
Before adjustment, please refer to "Preparation for Adjustments 13 through 23", Page 3-28.

WHITE LEVEL ADJUSTMENT

1. Press "V" or "Λ" button on the LCD Projector or remote control to select "PICTURE G" in the FACTORY ADJUST overlay.
2. Press " > " or " < " button so that the level A becomes 2.4 ± 0.03Vp-p.

BLACK LEVEL ADJUSTMENT

1. Press "V" or "Λ" button on the LCD Projector or remote control to select "BRIGHT G" in the FACTORY ADJUST overlay.
2. Press " > " and/or " < " button so that the level B becomes 0 ± 0.01Vp-p.

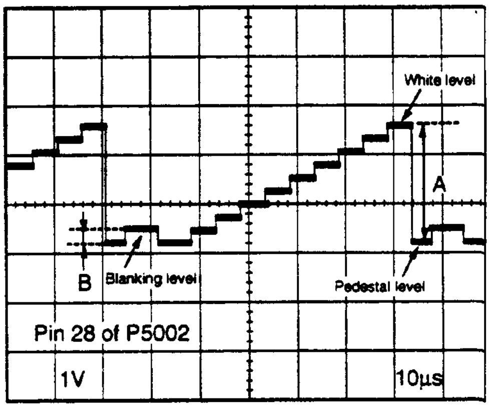


Fig. E16

17. BLUE SIGNAL LEVEL ADJUSTMENT

Purpose:
To set the optimum signal level.
Symptom of Misadjustment:
The picture will be too dark or too light.

TP	ADJ.	INPUT
Pin 26 of P5002 or TP3004		(Video Input Connector) GRAY SCALE PATTERN SIGNAL (10 scales)

EQUIPMENT	SPECIFICATION
OSCILLOSCOPE, NTSC VIDEO PATTERN GENERATOR	C = A ± 0.03Vp-p D = 0 ± 0.01Vp-p

Note:
Pin 26 of P5002 : VIDEO C.B.A.
TP3004 : MAIN C.B.A.

Caution:
Before adjustment, please refer to "Preparation for Adjustments 13 through 23", Page 3-28.

WHITE LEVEL ADJUSTMENT

1. Press "V" or "Λ" button on the LCD Projector or remote control to select "PICTURE B" in the FACTORY ADJUST overlay.
2. Press " > " or " < " button so that the level C becomes A (Refer to Fig.E16) ± 0.03Vp-p.

BLACK LEVEL ADJUSTMENT

1. Press "V" or "Λ" button on the LCD Projector or remote control to select "BRIGHT B" in the FACTORY ADJUST overlay.
2. Press " > " or " < " button so that the level D becomes 0 ± 0.01Vp-p.

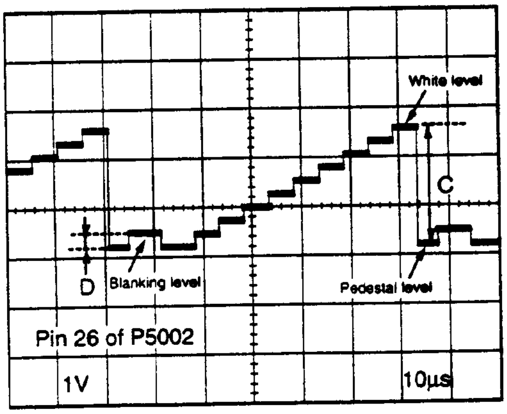


Fig. E17

18. TINT ADJUSTMENT

Purpose:
To set the standard color phase.
Symptom of Misadjustment:
The color will have an unnatural tint.

TP	ADJ.	INPUT
Pin 26 of P5002 or TP3004		(Video Input Connector) RAINBOW COLOR BAR SIGNAL

EQUIPMENT	SPECIFICATION
OSCILLOSCOPE, NTSC VIDEO PATTERN GENERATOR	Refer to Descriptions below.

Note:
Pin 26 of P5002 : VIDEO C.B.A.
TP3004 : MAIN C.B.A.

Caution:
Before adjustment, please refer to "Preparation for Adjustments 13 through 23", Page 3-28.

TINT ADJUSTMENT

1. Press "V" or "Λ" button on the LCD Projector or remote control to select "TINT" in the FACTORY ADJUST overlay.
2. Press " > " or " < " button so that the level of A and B becomes same level.

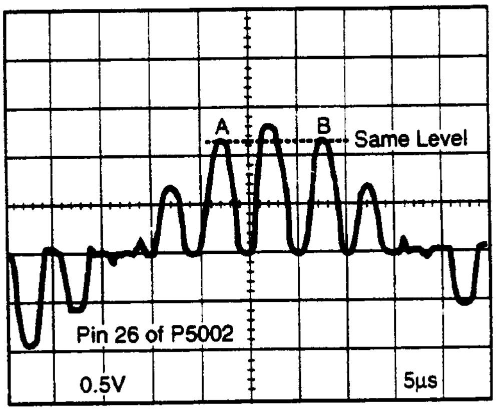


Fig. E18

19. COLOR ADJUSTMENT

Purpose:
To set the standard color phase.
Symptom of Misadjustment:
The color will be too vivid or too pale.

TP	ADJ.	INPUT
Pin 26 of P5002 or TP3004		(Video Input Connector) NTSC COLOR BAR SIGNAL

EQUIPMENT	SPECIFICATION
OSCILLOSCOPE, NTSC VIDEO PATTERN GENERATOR	A = 1.7 ± 0.01Vp-p

Note:
Pin 26 of P5002 : VIDEO C.B.A.
TP3004 : MAIN C.B.A.

Caution:
Before adjustment, please refer to "Preparation for Adjustments 13 through 28", Page 3-28.

WHITE LEVEL ADJUSTMENT

1. Press "V" or "Λ" button on the LCD Projector or remote control to select "COLOR" in the FACTORY ADJUST overlay.
2. Press ">" or "<" button so that the level A becomes 1.7 ± 0.01Vp-p.

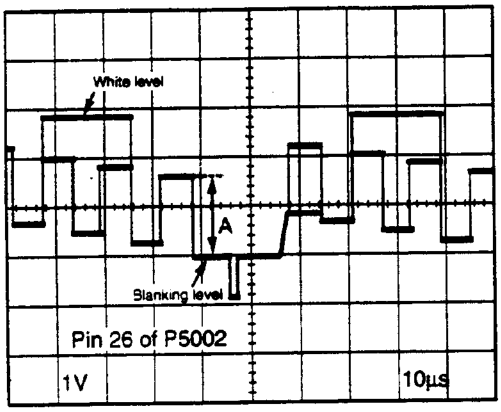


Fig. E19

20. S COLOR ADJUSTMENT

Purpose:
To set the optimum signal level.
Symptom of Misadjustment:
The picture will be too vivid or too pale.

TP	ADJ.	INPUT
Pin 26 of P5002 or TP3004		(S-Video Input Connector) NTSC COLOR BAR SIGNAL

EQUIPMENT	SPECIFICATION
OSCILLOSCOPE, NTSC VIDEO PATTERN GENERATOR	A = 1.7 ± 0.01Vp-p

Note:
Pin 26 of P5002 : VIDEO C.B.A.
TP3004 : MAIN C.B.A.

Caution:
Before adjustment, please refer to "Preparation for Adjustments 13 through 28", Page 3-28.

1. Press "V" or "Λ" button on the LCD Projector or remote control to select "S COLOR" in the FACTORY ADJUST overlay.
2. Press ">" or "<" button so that the level A becomes 1.7 ± 0.01Vp-p. (Refer to Fig. E19)

21. SECAM COLOR ADJUSTMENT

Purpose:
To set the optimum signal level.
Symptom of Misadjustment:
The picture will be too vivid or too pale.

TP	ADJ.	INPUT
Pin 26 of P5002 or TP3004		(Video Input Connector) SECAM COLOR BAR SIGNAL

EQUIPMENT	SPECIFICATION
OSCILLOSCOPE, NTSC VIDEO PATTERN GENERATOR	A = 1.8 ± 0.01Vp-p

Note:
Pin 26 of P5002 : VIDEO C.B.A.
TP3004 : MAIN C.B.A.

Caution:
Before adjustment, please refer to "Preparation for Adjustments 13 through 28", Page 3-28.

1. Press "V" or "Λ" button on the LCD Projector or remote control to select "SECAM COLOR" in the FACTORY ADJUST overlay.
2. Press ">" or "<" button so that the level A becomes 1.8 ± 0.01Vp-p.

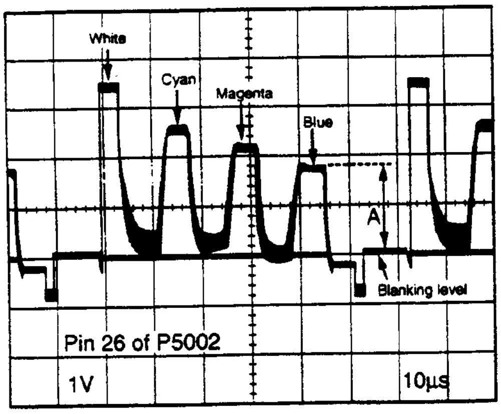


Fig. E20

22. SYNC PHASE ADJUSTMENT

Purpose:
To set the optimum phase of H. SYNC.
Symptom of Misadjustment:
The picture will be shift horizontally.

Method 1

TP	ADJ.	INPUT
Pin 23 of P5002 or TP3005 Pin 26 of P5002 or TP3004		(Video Input Connector) GRAY SCALE PATTERN SIGNAL (10 scales)

EQUIPMENT	SPECIFICATION
OSCILLOSCOPE, NTSC VIDEO PATTERN GENERATOR	A = 1.25 ± 0.15usec

Note:
Pin 23 of P5002, Pin 26 of P5002 : VIDEO C.B.A.
TP3004, TP3005 : MAIN C.B.A.

Caution:
Before adjustment, please refer to "Preparation for Adjustments 13 through 23", Page 3-28.

Point ⓐ : Where DC 2V line crosses CH1 signal.
Point ⓑ : Just between the pedestal level and White level of CH2 signal.
A : The period between ⓐ and ⓑ.

1. Press "V" or "Λ" button on the LCD Projector or remote control to select "H POSITION" in the FACTORY ADJUST overlay.
2. Press " > " or " < " button so that the period A is 1.25 ± 0.15usec.

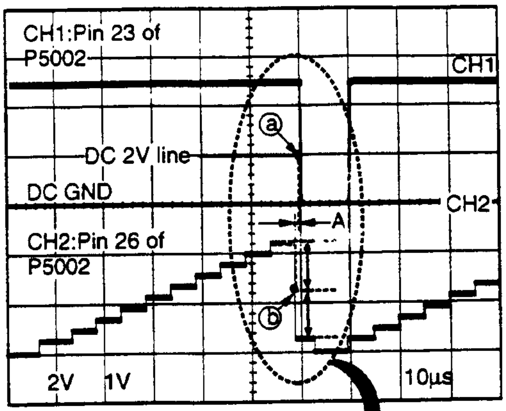


Fig. E21-1

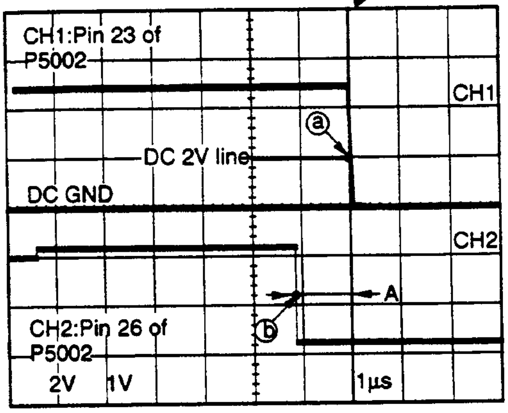


Fig. E21-2 (Enlarged View)

Method 2

1. Supply NTSC Mono Scope Signal (1 Vp-p) and project on the screen.
2. Press "V" or "Λ" button on the LCD Projector or remote control to select "H POSITION" in the FACTORY ADJUST overlay.
3. Press " > " or " < " button so that the projected image becomes the center.

23. ID ADJUSTMENT

Purpose:
To set the optimum voltage to identify PAL color signal.
Symptom of Misadjustment:
The picture color will not appear.

TP	ADJ.	INPUT
Pin 1 of P5002 or TP3009		(S-Video Input Connector) NO SIGNAL

EQUIPMENT	SPECIFICATION
DVM (DIGITAL VOLT METER)	1.9 ± 0.1VDC

Note:
Pin 1 of P5002 : VIDEO C.B.A.
TP3009 : MAIN C.B.A.

Caution:
Before adjustment, please refer to "Preparation for Adjustments 13 through 28", Page 3-28.

(SETUP)
1) Connect S-Video Jack to S-Video Input Connector (no input signal).

1. Press "V" or "Λ" button on the LCD Projector or remote control to select "ID" in the FACTORY ADJUST overlay.
2. Press ">" or "<" button so that the voltage becomes 1.9 ± 0.1VDC.

24. LCD AUXILIALY SIGNAL ADJUSTMENT

Purpose:
To set the optimum LCD auxilialy signal.
Symptom of Misadjustment:
The picture as crosstalk will appear.

TP	ADJ.	INPUT
TP3513	R3602 R3607	(VIDEO Input Connector) GRAY SCALE PATTERN SIGNAL (10scales)

EQUIPMENT	SPECIFICATION
OSCILLOSCOPE NTSC COLOR BAR GENERATOR	A = 8.0 ± 0.1Vp-p B = 2.0 ± 0.1Vp-p

TP3513, R3602, R3607 : LCD Drive C.B.A.

1. Connect the oscilloscope to TP3513.
2. Adjust R3607 (NRSH) so that the level A becomes 8.0±0.1 Vp-p.
3. Adjust R3602 (NRSL) so that the level B becomes 2.0±0.1 Vp-p.

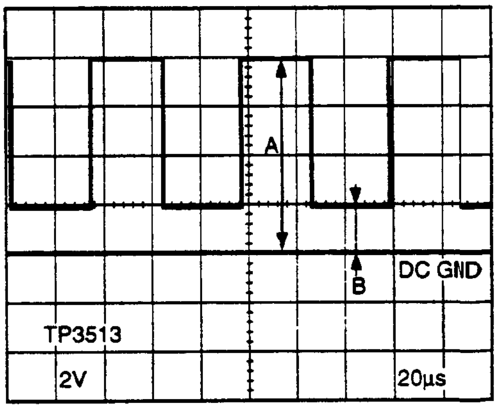
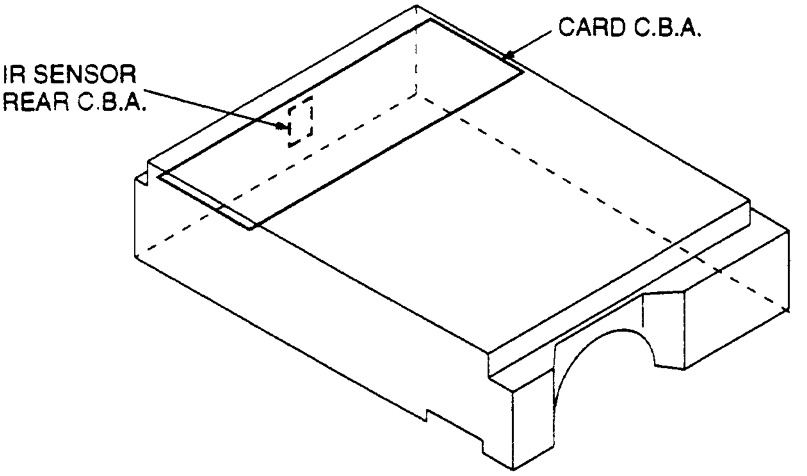
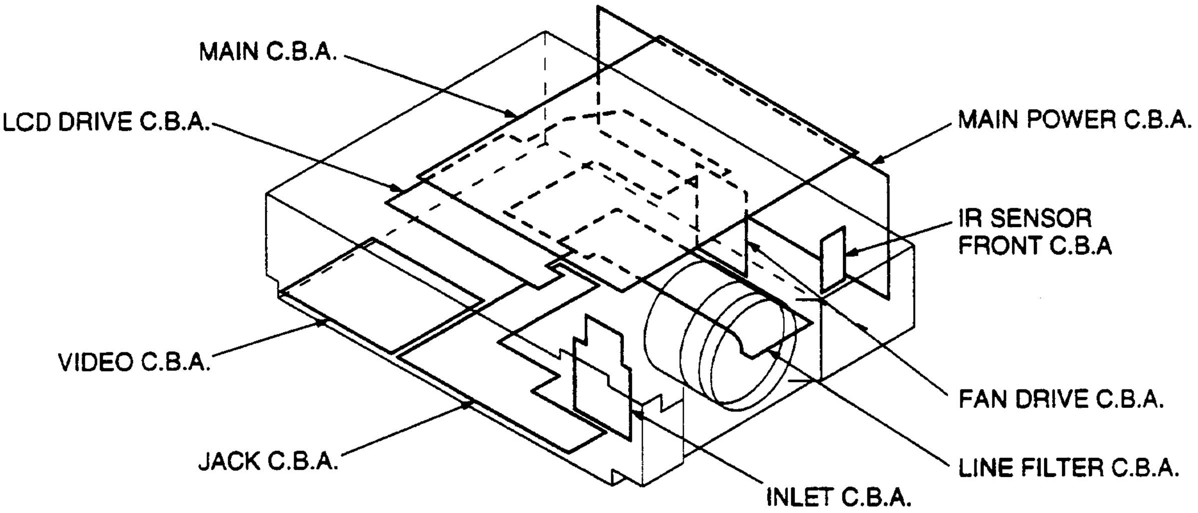


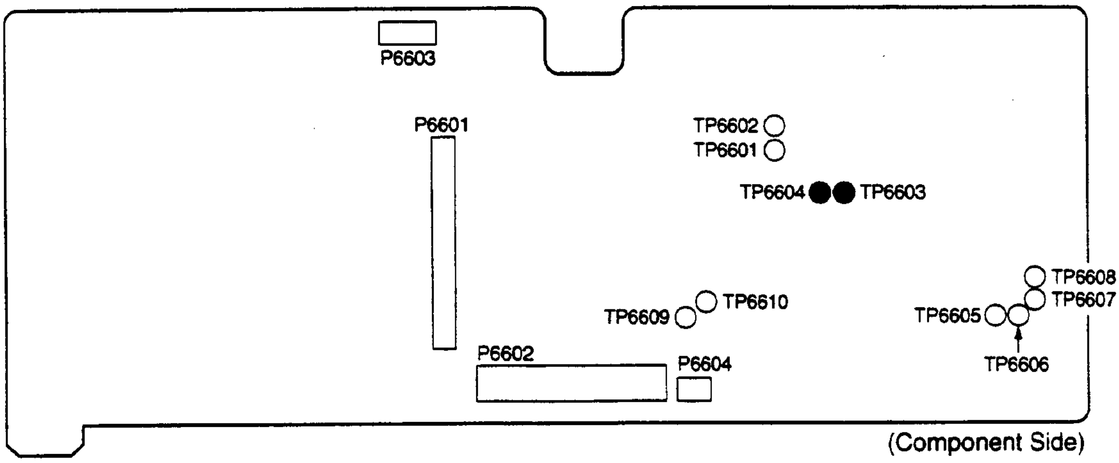
Fig. E22

LOCATION OF SERVICE ADJUSTMENT CONTROLS AND CIRCUIT BOARD


CARD C.B.A.
IR SENSOR REAR C.B.A.

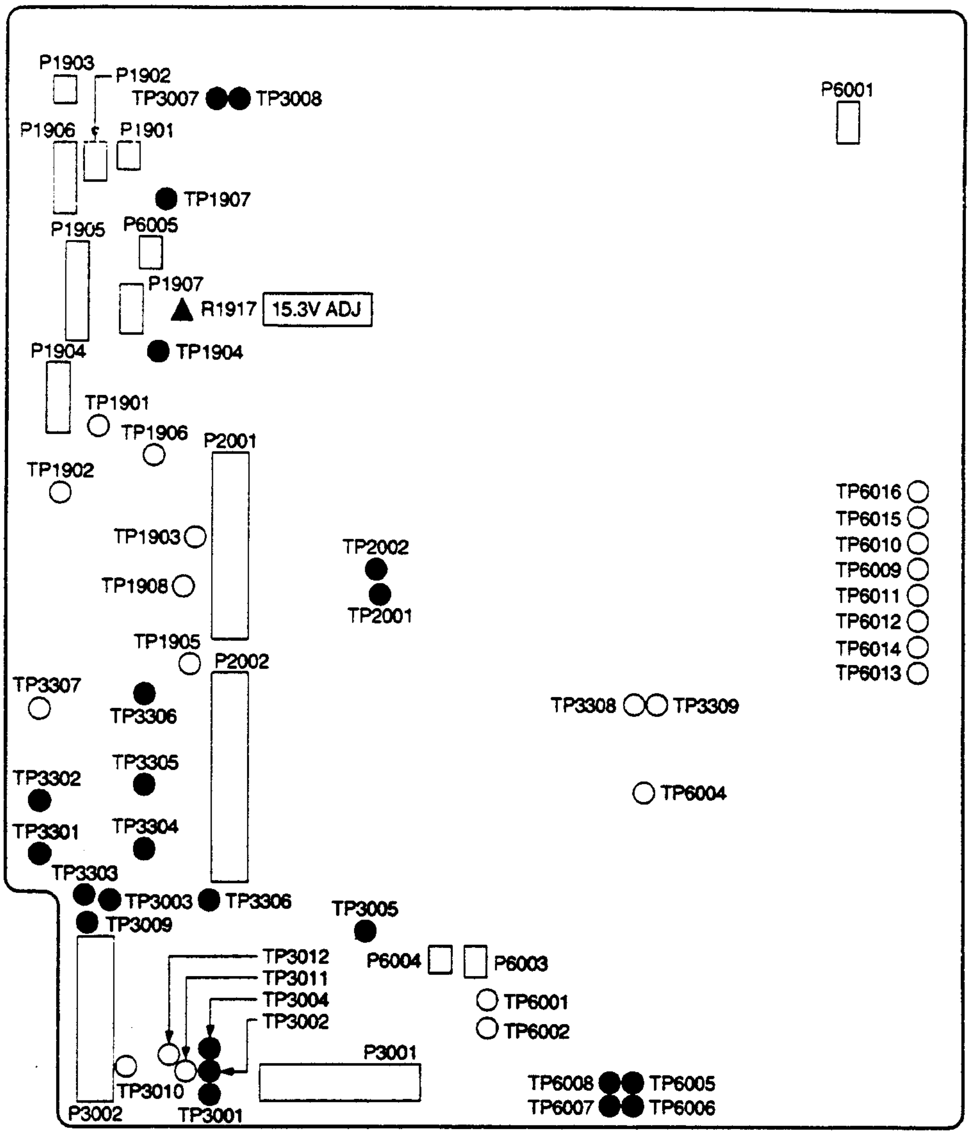

MAIN C.B.A.
LCD DRIVE C.B.A.
MAIN POWER C.B.A.
IR SENSOR FRONT C.B.A
VIDEO C.B.A.
FAN DRIVE C.B.A.
JACK C.B.A.
LINE FILTER C.B.A.
INLET C.B.A.

CARD C.B.A.


P6603
P6601
TP6602
TP6601
TP6604
TP6603
TP6608
TP6607
TP6610
TP6609
TP6605
TP6606
P6602
P6604

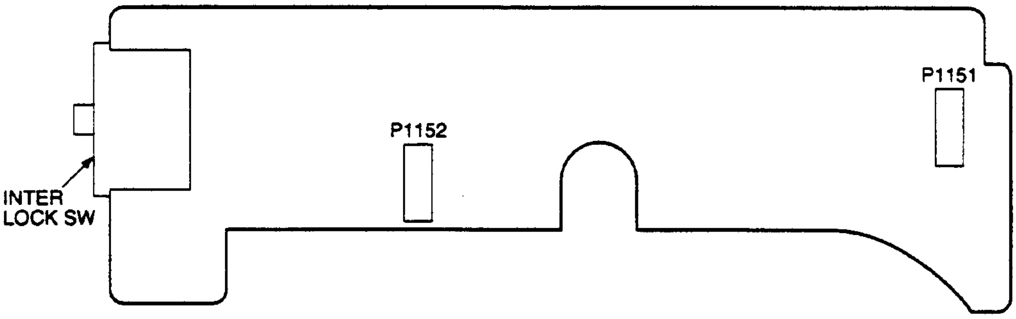
(Component Side)

MAIN C.B.A.


P1903
P1902
TP3007
TP3008
P6001
P1906
P1901
TP1907
P1905
P6005
P1907
R1917
15.3V ADJ
P1904
TP1904
TP1901
TP1906
P2001
TP1902
TP6016
TP6015
TP6010
TP6009
TP6011
TP6012
TP6014
TP6013
TP1903
TP1908
TP2002
TP2001
TP1905
P2002
TP3307
TP3306
TP3308
TP3309
TP3305
TP3302
TP6004
TP3301
TP3304
TP3303
TP3003
TP3306
TP3005
TP3009
TP3012
TP3011
TP3004
TP3002
P6004
P6003
TP6001
TP6002
P3001
TP3010
TP6008
TP6005
TP6007
TP6006
P3002
TP3001

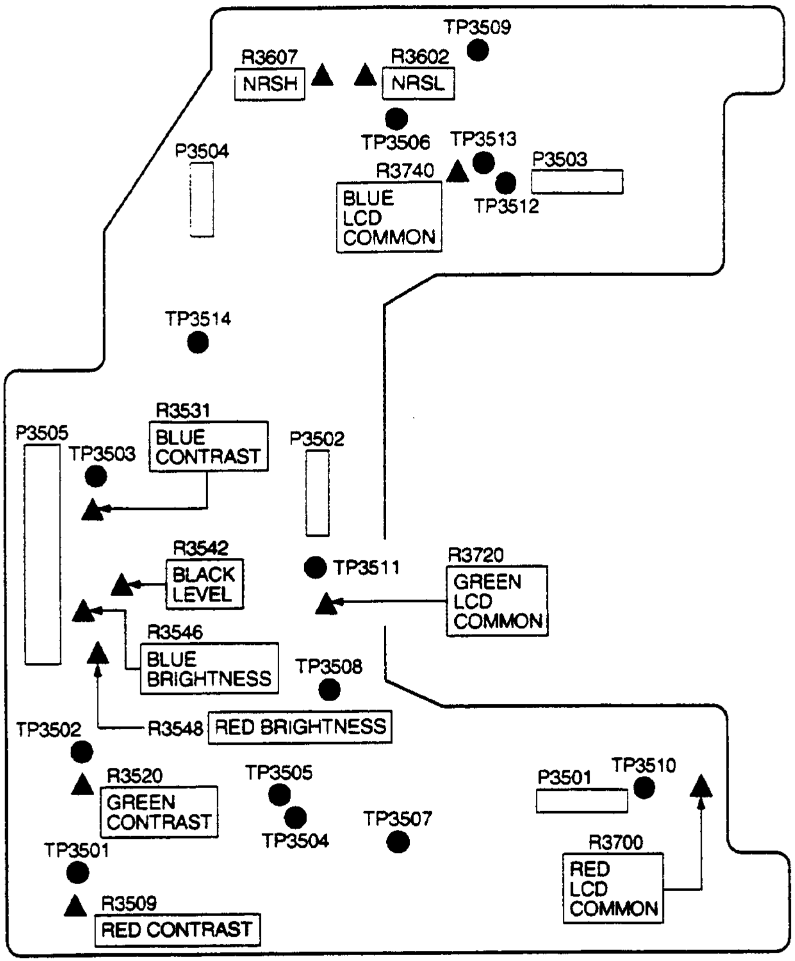
(Component Side)

LINE FILTER C.B.A.


P1151
P1152
INTER
LOCK SW

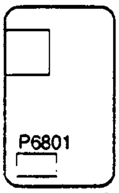
(Component Side)

LCD DRIVE C.B.A.


TP3509
R3607
NRSH
R3602
NRSL
TP3506
TP3513
P3504
R3740
P3503
BLUE
LCD
COMMON
TP3512
TP3514
R3531
BLUE
CONTRAST
P3505
TP3503
P3502
R3542
BLACK
LEVEL
TP3511
R3720
GREEN
LCD
COMMON
R3546
BLUE
BRIGHTNESS
TP3508
TP3502
R3548
RED BRIGHTNESS
R3520
GREEN
CONTRAST
TP3505
P3501
TP3510
TP3504
TP3507
R3700
RED
LCD
COMMON
TP3501
R3509
RED CONTRAST

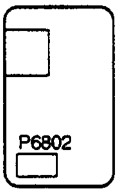
(Component Side)

IR SENSOR FRONT C.B.A.



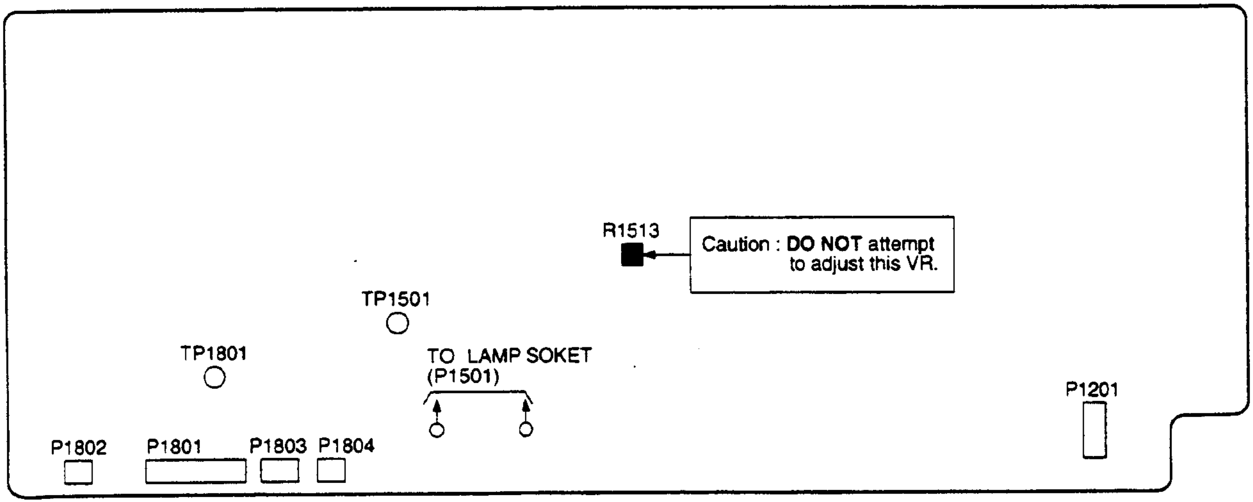
(Component Side)

IR SENSOR REAR C.B.A.



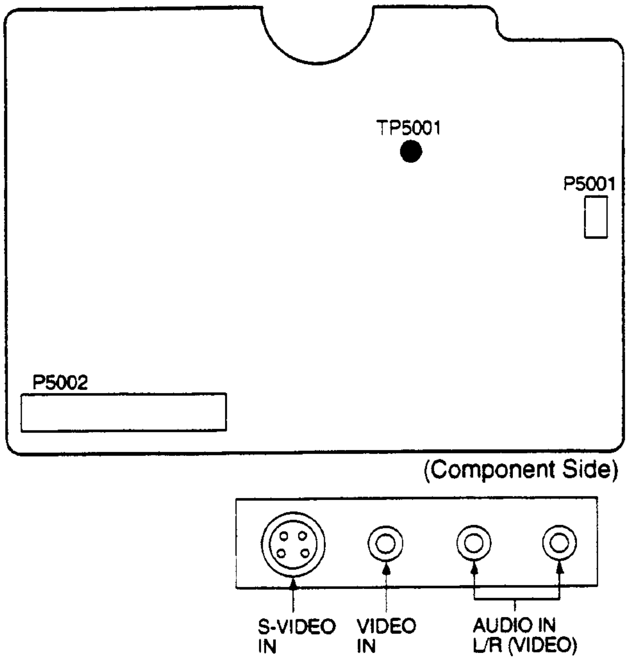
(Component Side)

MAIN POWER C.B.A.

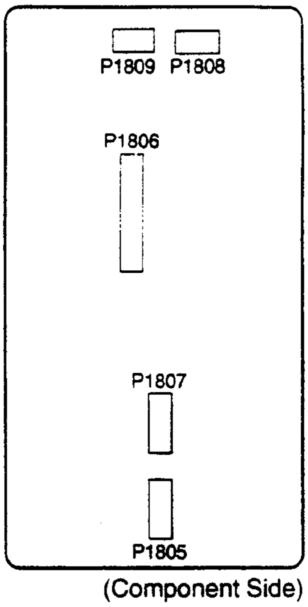

R1513
Caution : DO NOT attempt to adjust this VR.
TP1501
TP1801
TO LAMP SOKET (P1501)
P1201
P1802
P1801
P1803
P1804

(Component Side)

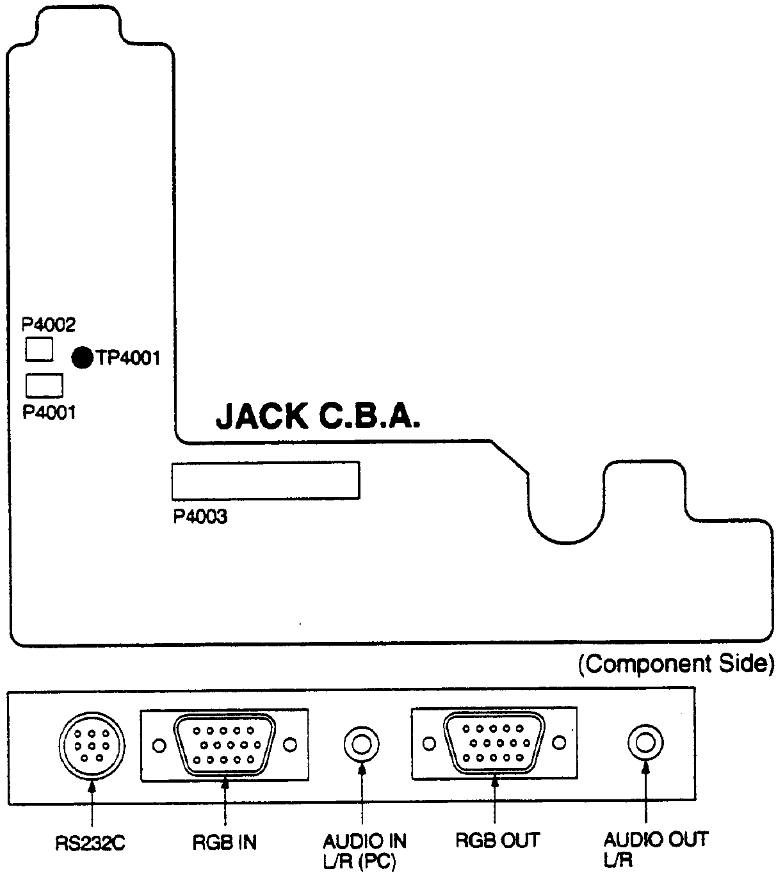
VIDEO C.B.A.


TP5001
P5001
P5002
(Component Side)
S-VIDEO IN
VIDEO IN
AUDIO IN L/R (VIDEO)

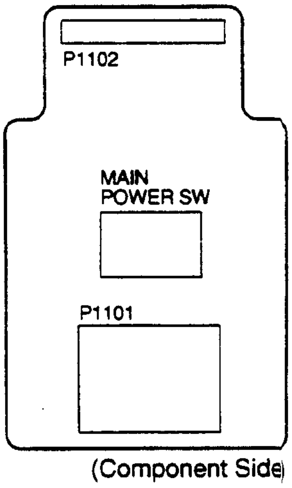
FAN DRIVE C.B.A.


P1809
P1808
P1806
P1807
P1805
(Component Side)

JACK C.B.A.

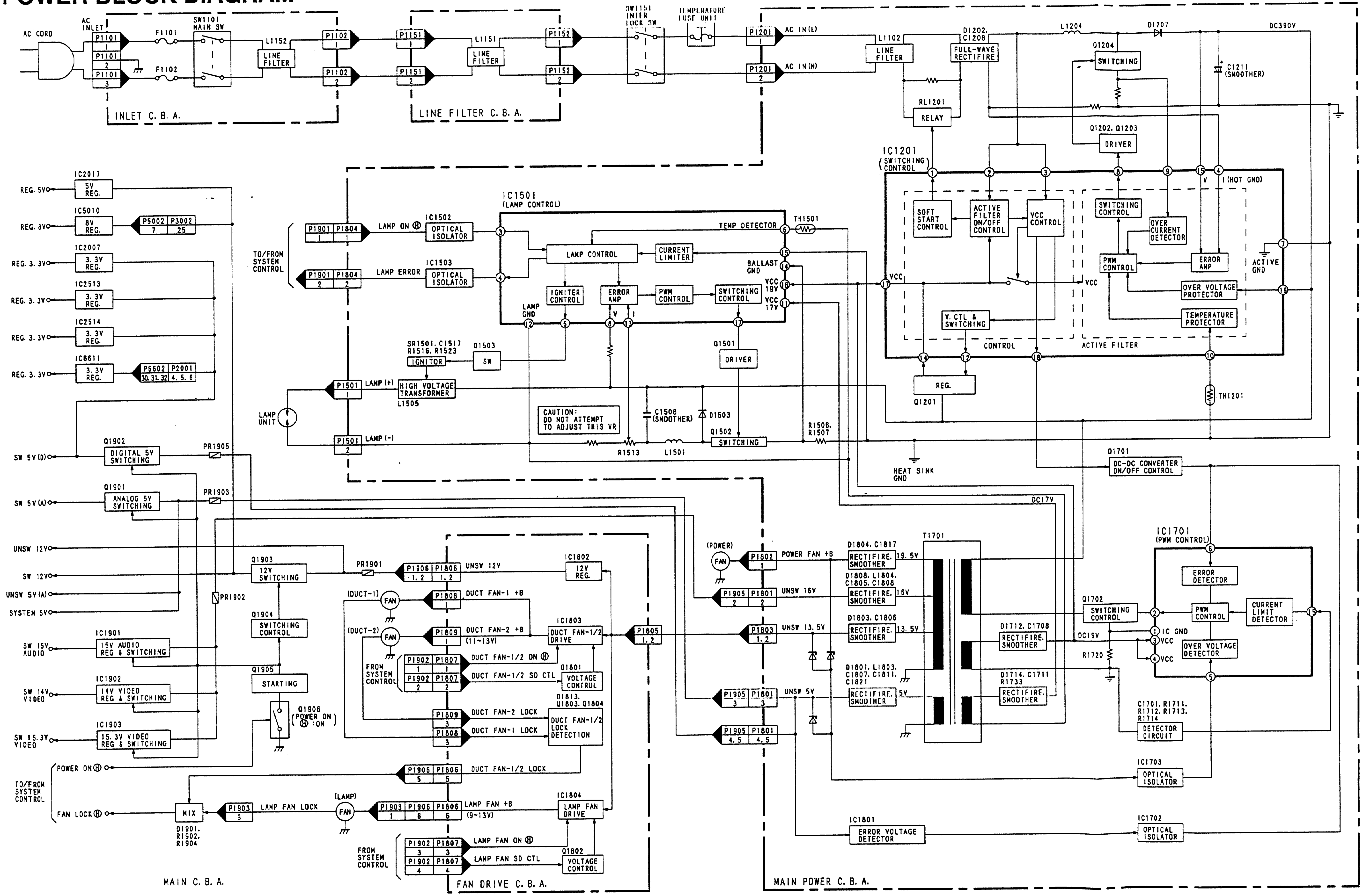

P4002
TP4001
P4001
P4003
(Component Side)
RS232C
RGB IN
AUDIO IN L/R (PC)
RGB OUT
AUDIO OUT L/R

INLET C.B.A.

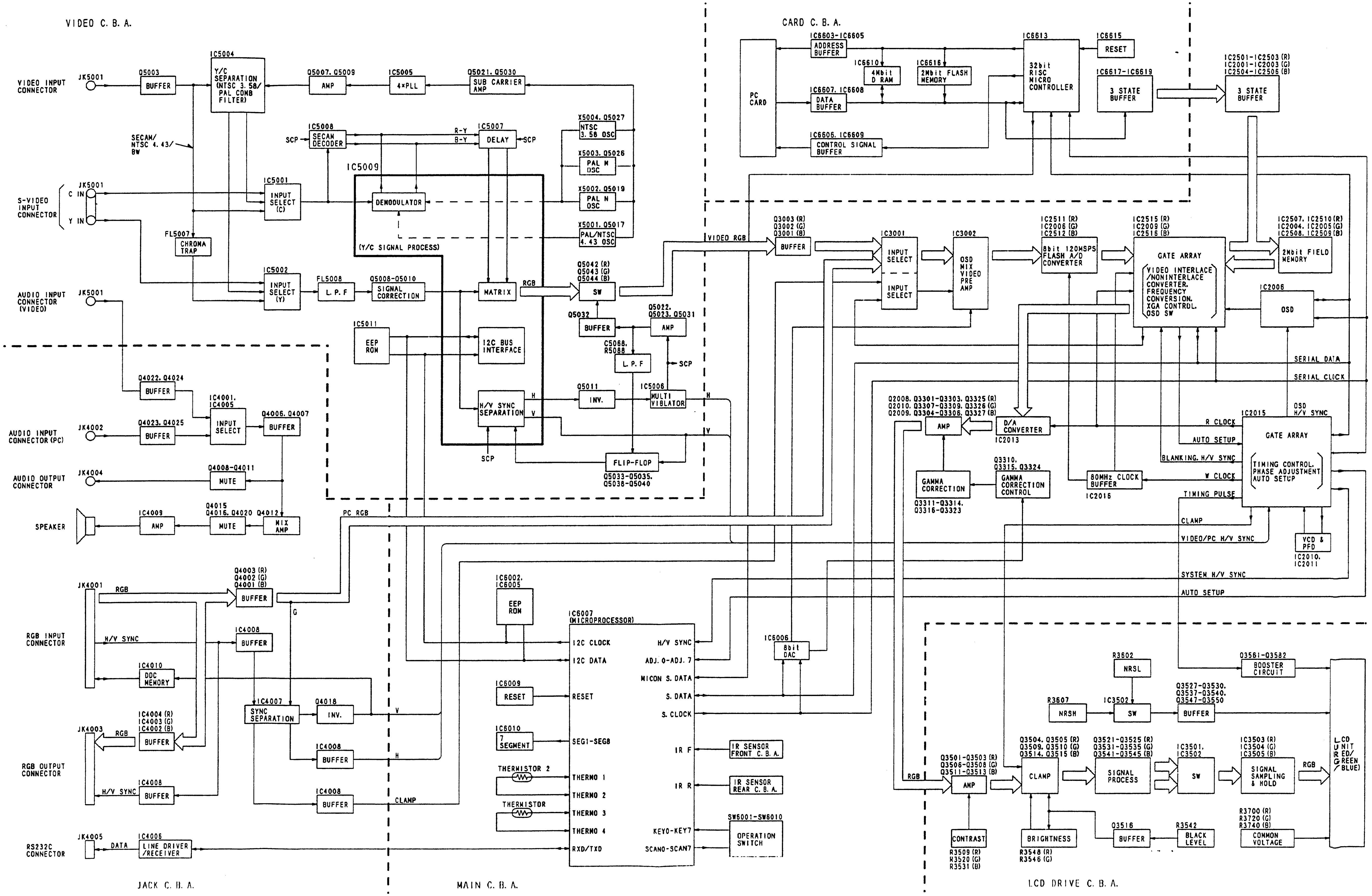

P1102
MAIN POWER SW
P1101
(Component Side)

● Test Point with a Test Pin.
○ Test Point with no Test Pin
▲ Variable Resisitor
☐ Connector

BLOCK DIAGRAMS
POWER BLOCK DIAGRAM


AC CORD
AC INLET
P1101
F1101
F1102
SW1101 MAIN SW
L1152
LINE FILTER
P1102
INLET C. B. A.
P1151
L1151
LINE FILTER
P1152
LINE FILTER C. B. A.
SW1151 INTER LOCK SW
TEMPERATURE FUSE UNIT
P1201
AC IN(L)
AC IN(N)
L1102
LINE FILTER
D1202, C1208
FULL-WAVE RECTIFIRE
L1204
D1207
DC390V
Q1204
SWITCHING
C1211 (SMOOTHER)
RL1201
RELAY
Q1202, Q1203
DRIVER
IC1201 (SWITCHING CONTROL)
SOFT START CONTROL
ACTIVE FILTER ON/OFF CONTROL
VCC CONTROL
SWITCHING CONTROL
OVER CURRENT DETECTOR
PWM CONTROL
ERROR AMP
I (HOT GND)
ACTIVE GND
OVER VOLTAGE PROTECTOR
TEMPERATURE PROTECTOR
V. CTL & SWITCHING
CONTROL
ACTIVE FILTER
VCC
REG.
Q1201
TH1201
IC1501 (LAMP CONTROL)
TEMP DETECTOR
TH1501
LAMP CONTROL
CURRENT LIMITER
BALLAST GND
VCC 19V
VCC 17V
IGNITER CONTROL
ERROR AMP
PWM CONTROL
SWITCHING CONTROL
LAMP GND
IC1502
OPTICAL ISOLATOR
IC1503
OPTICAL ISOLATOR
LAMP ON Ⓗ
LAMP ERROR
P1901
P1804
TO/FROM SYSTEM CONTROL
SR1501, C1517
R1516, R1523
IGNITOR
Q1503
SW
Q1501
DRIVER
P1501
LAMP (+)
LAMP (-)
HIGH VOLTAGE TRANSFORMER
L1505
LAMP UNIT
CAUTION: DO NOT ATTEMPT TO ADJUST THIS VR
C1508 (SMOOTHER)
D1503
Q1502
SWITCHING
R1506, R1507
R1513
L1501
HEAT SINK GND
Q1701
DC-DC CONVERTER ON/OFF CONTROL
DC17V
IC2017
5V REG.
REG. 5V
IC5010
8V REG.
REG. 8V
P5002
P3002
IC2007
3.3V REG.
REG. 3.3V
IC2513
IC2514
IC6611
P6602
P2001
Q1902
DIGITAL 5V SWITCHING
SW 5V(D)
PR1905
Q1901
ANALOG 5V SWITCHING
SW 5V(A)
PR1903
UNSW 12V
SW 12V
UNSW 5V(A)
SYSTEM 5V
Q1903
12V SWITCHING
PR1901
PR1902
Q1904
SWITCHING CONTROL
Q1905
STARTING
Q1906 (POWER ON) Ⓗ:ON
IC1901
15V AUDIO REG & SWITCHING
SW 15V AUDIO
IC1902
14V VIDEO REG & SWITCHING
SW 14V VIDEO
IC1903
15.3V VIDEO REG & SWITCHING
SW 15.3V VIDEO
POWER ON Ⓗ
FAN LOCK Ⓗ
TO/FROM SYSTEM CONTROL
MIX
D1901, R1902, R1904
P1903
LAMP FAN LOCK
(LAMP)
FAN
MAIN C. B. A.
P1906
P1806
UNSW 12V
IC1802
12V REG.
(DUCT-1)
P1808
DUCT FAN-1 +B
(DUCT-2)
P1809
DUCT FAN-2 +B
(11~13V)
IC1803
DUCT FAN-1/2 DRIVE
P1805
P1902
P1807
DUCT FAN-1/2 ON Ⓗ
DUCT FAN-1/2 SD CTL
FROM SYSTEM CONTROL
Q1801
VOLTAGE CONTROL
D1813, D1803, Q1804
DUCT FAN-2 LOCK
DUCT FAN-1 LOCK
DUCT FAN-1/2 LOCK DETECTION
DUCT FAN-1/2 LOCK
LAMP FAN +B
(9~13V)
IC1804
LAMP FAN DRIVE
LAMP FAN ON Ⓗ
LAMP FAN SD CTL
Q1802
VOLTAGE CONTROL
FAN DRIVE C. B. A.
(POWER)
P1802
POWER FAN +B
P1801
UNSW 16V
P1803
UNSW 13.5V
UNSW 5V
T1701
D1804, C1817
RECTIFIRE. SMOOTHER
19.5V
D1808, L1804, C1805, C1808
16V
D1803, C1806
13.5V
D1801, L1803, C1807, C1811, C1821
5V
D1712, C1708
D1714, C1711
R1733
DC19V
R1720
Q1702
SWITCHING CONTROL
IC1701 (PWM CONTROL)
ERROR DETECTOR
PWM CONTROL
CURRENT LIMIT DETECTOR
IC GND
OVER VOLTAGE DETECTOR
C1701, R1711, R1712, R1713, R1714
DETECTOR CIRCUIT
IC1703
OPTICAL ISOLATOR
IC1801
ERROR VOLTAGE DETECTOR
IC1702
OPTICAL ISOLATOR
MAIN POWER C. B. A.

MAIN SIGNAL BLOCK DIAGRAM


VIDEO C. B. A.
CARD C. B. A.
JACK C. B. A.
MAIN C. B. A.
LCD DRIVE C. B. A.
VIDEO INPUT CONNECTOR
JK5001
Q5003
BUFFER
IC5004
Y/C SEPARATION (NTSC 3.58/ PAL COMB FILTER)
Q5007, Q5009
AMP
IC5005
4×PLL
Q5021, Q5030
SUB CARRIER AMP
SECAM/ NTSC 4.43/ BW
IC5008
SECAM DECODER
SCP
R-Y
B-Y
IC5007
DELAY
IC5009
X5004, Q5027
NTSC 3.58 OSC
X5003, Q5026
PAL M OSC
X5002, Q5019
PAL N OSC
X5001, Q5017
PAL/NTSC 4.43 OSC
S-VIDEO INPUT CONNECTOR
C IN
Y IN
IC5001
INPUT SELECT (C)
DEMODULATOR
(Y/C SIGNAL PROCESS)
FL5007
CHROMA TRAP
IC5002
INPUT SELECT (Y)
FL5008
L.P.F
Q5008-Q5010
SIGNAL CORRECTION
MATRIX
RGB
Q5042 (R)
Q5043 (G)
Q5044 (B)
SW
AUDIO INPUT CONNECTOR (VIDEO)
IC5011
EEP ROM
I2C BUS INTERFACE
Q5032
BUFFER
Q5022, Q5023, Q5031
AMP
C5068, R5088
L.P.F
SCP
Q5011
INV.
IC5006
MULTI VIBLATOR
H/V SYNC SEPARATION
H
V
FLIP-FLOP
Q5033-Q5035, Q5038-Q5040
Q4022, Q4024
BUFFER
IC4001, IC4005
INPUT SELECT
Q4006, Q4007
BUFFER
AUDIO INPUT CONNECTOR (PC)
JK4002
Q4023, Q4025
BUFFER
AUDIO OUTPUT CONNECTOR
JK4004
Q4008-Q4011
MUTE
SPEAKER
IC4009
AMP
Q4015 Q4016, Q4020
MUTE
Q4012
MIX AMP
PC RGB
JK4001
RGB
Q4003 (R)
Q4002 (G)
Q4001 (B)
BUFFER
G
RGB INPUT CONNECTOR
H/V SYNC
IC4008
BUFFER
IC4010
DDC MEMORY
IC4007
SYNC SEPARATION
Q4018
INV.
IC4004 (R)
IC4003 (G)
IC4002 (B)
BUFFER
JK4003
RGB OUTPUT CONNECTOR
IC4008
BUFFER
IC4008
BUFFER
CLAMP
RS232C CONNECTOR
JK4005
DATA
IC4006
LINE DRIVER /RECEIVER
IC6002, IC6005
EEP ROM
IC6007 (MICROPROCESSOR)
I2C CLOCK
I2C DATA
RESET
SEG1-SEG8
THERMO 1
THERMO 2
THERMO 3
THERMO 4
RXD/TXD
H/V SYNC
ADJ. 0-ADJ. 7
MICON S. DATA
S. DATA
S. CLOCK
IR F
IR R
KEY0-KEY7
SCAN0-SCAN7
IC6009
RESET
IC6010
7 SEGMENT
THERMISTOR 2
THERMISTOR
IR SENSOR FRONT C. B. A.
IR SENSOR REAR C. B. A.
SW6001-SW6010
OPERATION SWITCH
IC6006
8bit DAC
PC CARD
IC6603-IC6605
ADDRESS BUFFER
IC6610
4Mbit D RAM
IC6616
2Mbit FLASH MEMORY
IC6607, IC6608
DATA BUFFER
IC6606, IC6609
CONTROL SIGNAL BUFFER
IC6613
32bit RISC MICRO CONTROLLER
IC6615
RESET
IC6617-IC6619
3 STATE BUFFER
IC2501-IC2503 (R)
IC2001-IC2003 (G)
IC2504-IC2506 (B)
3 STATE BUFFER
VIDEO RGB
Q3003 (R)
Q3002 (G)
Q3001 (B)
BUFFER
IC3001
INPUT SELECT
INPUT SELECT
IC3002
OSD MIX VIDEO PRE AMP
IC2511 (R)
IC2006 (G)
IC2512 (B)
8bit 120MSPS FLASH A/D CONVERTER
IC2515 (R)
IC2009 (G)
IC2516 (B)
GATE ARRAY
VIDEO INTERLACE /NONINTERLACE CONVERTER, FREQUENCY CONVERSION, XGA CONTROL, OSD SW
IC2507, IC2510 (R)
IC2004, IC2005 (G)
IC2508, IC2509 (B)
2Mbit FIELD MEMORY
IC2006
OSD
SERIAL DATA
SERIAL CLOCK
Q2008, Q3301-Q3303, Q3325 (R)
Q2010, Q3307-Q3309, Q3326 (G)
Q2009, Q3304-Q3306, Q3327 (B)
AMP
D/A CONVERTER
IC2013
IC2015
OSD H/V SYNC
GATE ARRAY
R CLOCK
AUTO SETUP
BLANKING, H/V SYNC
W CLOCK
TIMING CONTROL, PHASE ADJUSTMENT AUTO SETUP
TIMING PULSE
CLAMP
VIDEO/PC H/V SYNC
SYSTEM H/V SYNC
AUTO SETUP
VCO & PFD
IC2010, IC2011
Q3310, Q3315, Q3324
GAMMA CORRECTION CONTROL
GAMMA CORRECTION
Q3311-Q3314, Q3316-Q3323
80MHz CLOCK BUFFER
IC2016
R3602
NRSL
R3607
NRSH
IC3502
SW
Q3527-Q3530, Q3537-Q3540, Q3547-Q3550
BUFFER
Q3561-Q3582
BOOSTER CIRCUIT
RGB
Q3501-Q3503 (R)
Q3506-Q3508 (G)
Q3511-Q3513 (B)
AMP
Q3504, Q3505 (R)
Q3509, Q3510 (G)
Q3514, Q3515 (B)
CLAMP
Q3521-Q3525 (R)
Q3531-Q3535 (G)
Q3541-Q3545 (B)
SIGNAL PROCESS
IC3501, IC3502
SW
IC3503 (R)
IC3504 (G)
IC3505 (B)
SIGNAL SAMPLING & HOLD
RGB
LCD UNIT (RED/ GREEN /BLUE)
CONTRAST
R3509 (R)
R3520 (G)
R3531 (B)
BRIGHTNESS
R3548 (R)
R3546 (G)
Q3516
BUFFER
R3542
BLACK LEVEL
R3700 (R)
R3720 (G)
R3740 (B)
COMMON VOLTAGE

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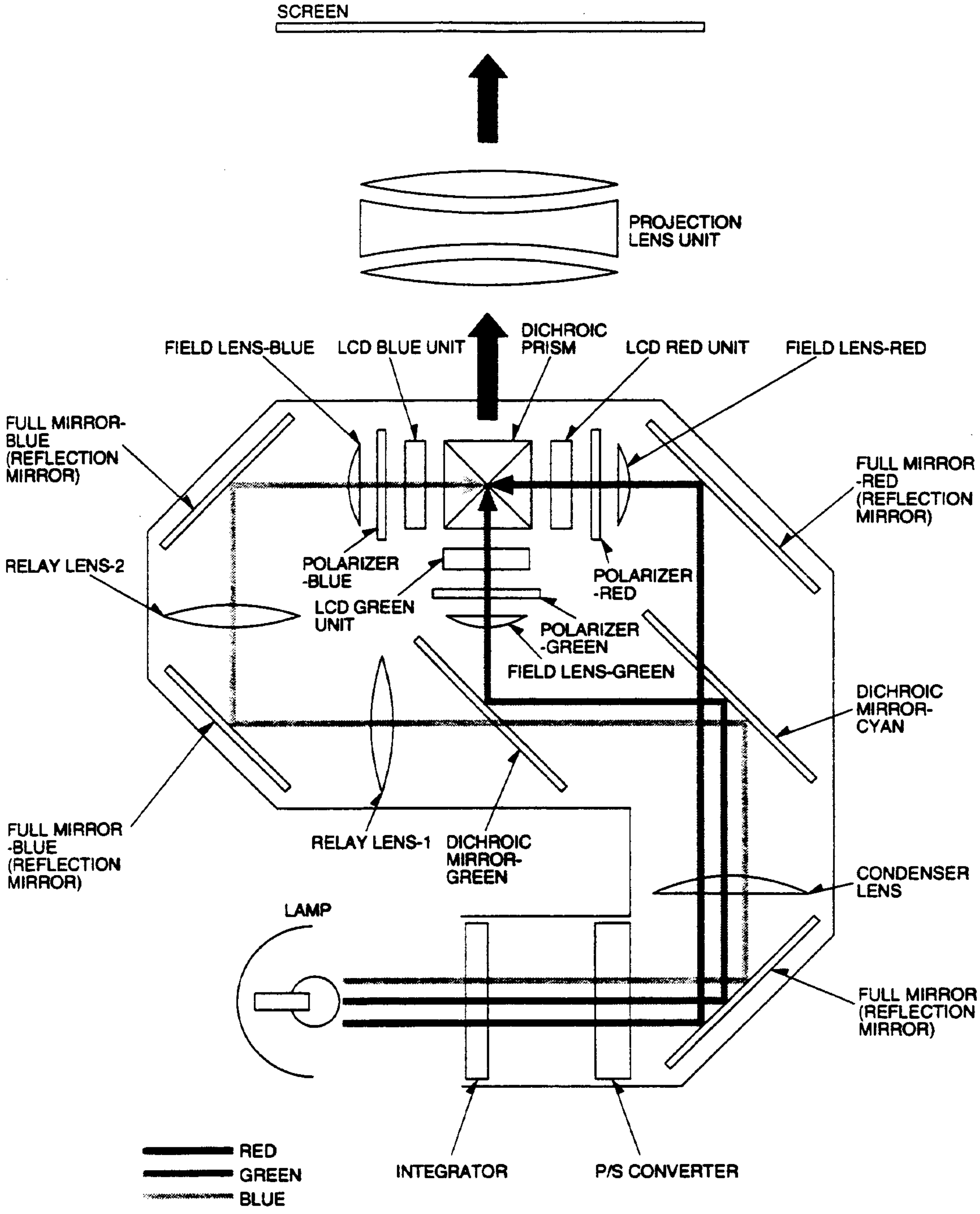
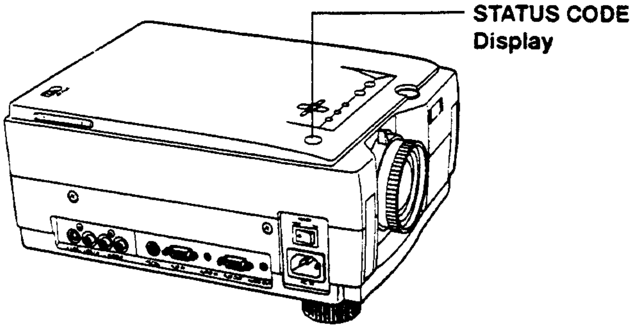
OPTICAL BLOCK DIAGRAM


SCREEN
PROJECTION LENS UNIT
FIELD LENS-BLUE
LCD BLUE UNIT
DICHROIC PRISM
LCD RED UNIT
FIELD LENS-RED
FULL MIRROR-BLUE (REFLECTION MIRROR)
FULL MIRROR -RED (REFLECTION MIRROR)
RELAY LENS-2
POLARIZER -BLUE
LCD GREEN UNIT
POLARIZER -RED
POLARIZER -GREEN
FIELD LENS-GREEN
DICHROIC MIRROR-CYAN
FULL MIRROR -BLUE (REFLECTION MIRROR)
RELAY LENS-1
DICHROIC MIRROR-GREEN
CONDENSER LENS
LAMP
FULL MIRROR (REFLECTION MIRROR)
RED
GREEN
BLUE
INTEGRATOR
P/S CONVERTER

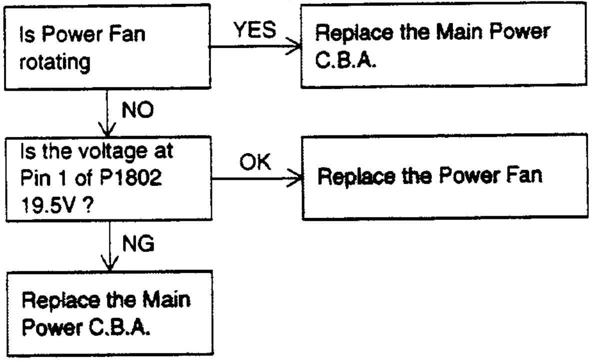
TROUBLESHOOTING HINTS

Status Code Display Indications

Following Status Code will be displayed in the STATUS CODE display.

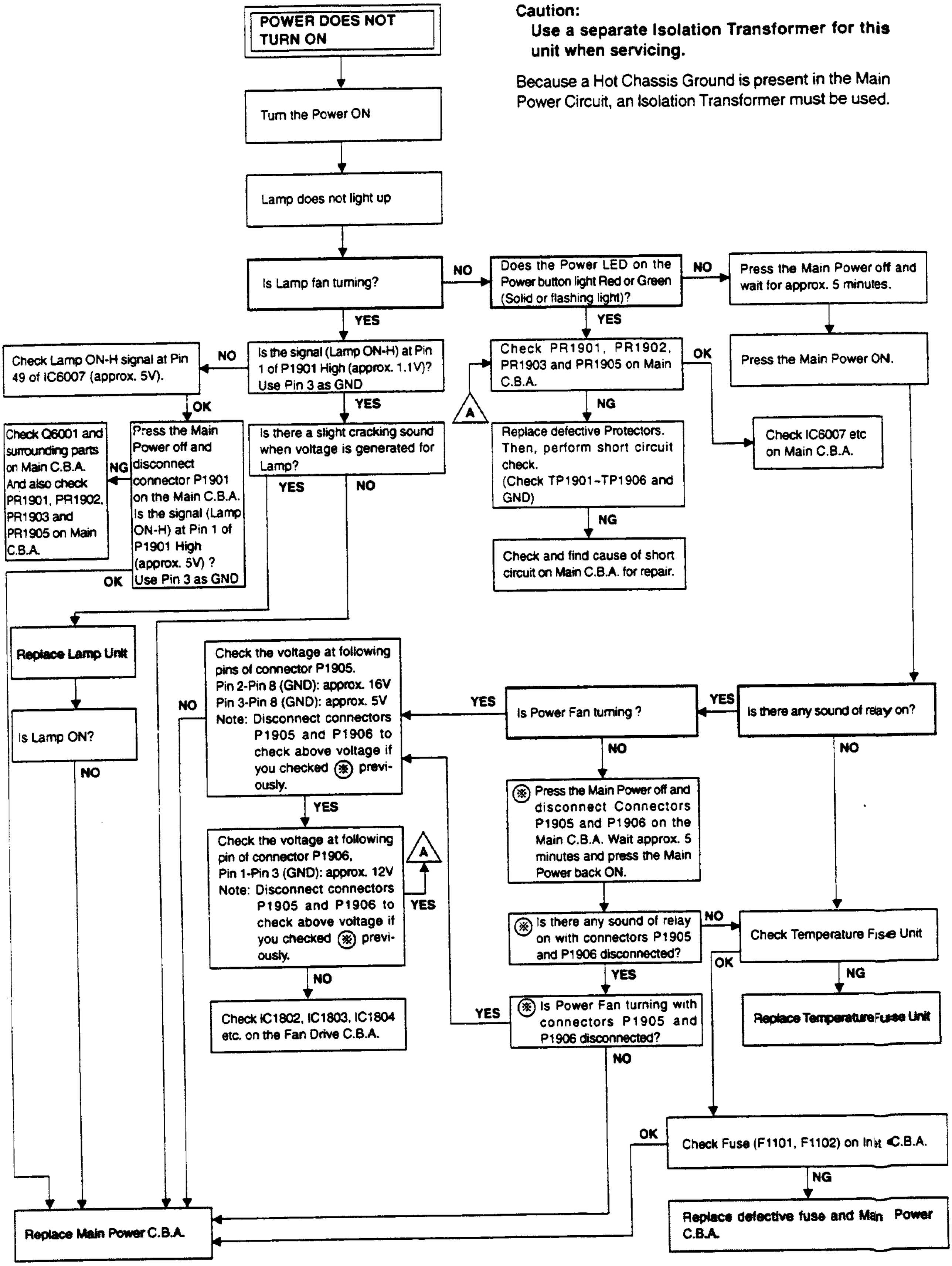


<table>
<tr><th>STATUS CODE</th><th>Symptom</th><th>Problem</th><th>Possible Solution</th></tr>
<tr><td>F-L</td><td rowspan="4">Lamp Unit automatically turns off due to abnormally high internal temperature.
(Stand-by condition)</td><td>• Cooling fan (Duct Fan 1 and/or Duct Fan 2 and/or Lamp Fan) malfunction.</td><td>1) Confirm that all cables are connected to connectors (P1805, P1807, P1808, P1809, P1902, P1903 and P1906) correctly.
2) Check following fan lock signal
<table>
<tr><td>Check Pin 3 of P1808
(Duct Fan 1 lock signal)</td><td>High →</td><td>Replace
Duct Fan 1</td></tr>
<tr><td>Check Pin 3 of P1903
(Lamp Fan lock signal)</td><td>High →</td><td>Replace
Lamp Fan</td></tr>
<tr><td>Check Pin 3 of P1809
(Duct Fan 2 lock signal)</td><td>High or Low →</td><td>Replace
Duct Fan 2</td></tr>
</table>
NOTE: Duct Fan 2 lock signal
In normal condition, the pulse responding to fan rotation is output at Pin 3 of P1809.
In lock condition, Low or High signal is output.
 </td></tr>
<tr><td>F-O</td><td>• Misinstalled Air Filter Unit.</td><td>• Properly install Air Filter Unit.</td></tr>
<tr><td>A-n</td><td>• Temperature Sensor malfunction.
(Thermistor on the Duct and/or on the Polarizer is short or open.)</td><td>• Check the voltage at Pin 1 and Pin 3 of P6003.
• Check the voltage at Pin 1 and Pin 2 of P6004.
(1) Thermistor on the Duct
<table>
<tr><th>Check Pin \ Condition of sensor</th><th>Open</th><th>Short</th><td rowspan="3">→</td><td rowspan="3">Replace the Thermistor 2 C.BA.</td></tr>
<tr><td>Pin 1 of P6003</td><td>5V</td><td>2.5V</td></tr>
<tr><td>Pin 3 of P6003</td><td>0V</td><td>2.5V</td></tr>
</table>
(2) Thermistor on the Polarizer
<table>
<tr><th>Check Pin \ Condition of sensor</th><th>Open</th><th>Short</th><td rowspan="3">→</td><td rowspan="3">Replace the Thermistor</td></tr>
<tr><td>Pin 1 of P6004</td><td>5V</td><td>2.5V</td></tr>
<tr><td>Pin 2 of P6004</td><td>0V</td><td>2.5V</td></tr>
</table></td></tr>
<tr><td>A-0
A-1</td><td>• Clogged air filter.
• Blocked air intake.
• The surrounding temperature of the place of use may be too high.</td><td>• Clean the filter.
• Relocate projector to a proper location.
• Place projector so that surrounding temperature is between 5°C (41°F) and 40°C (104°F) and the humidity is between 10% and 80% (with no condensation).</td></tr>
</table>

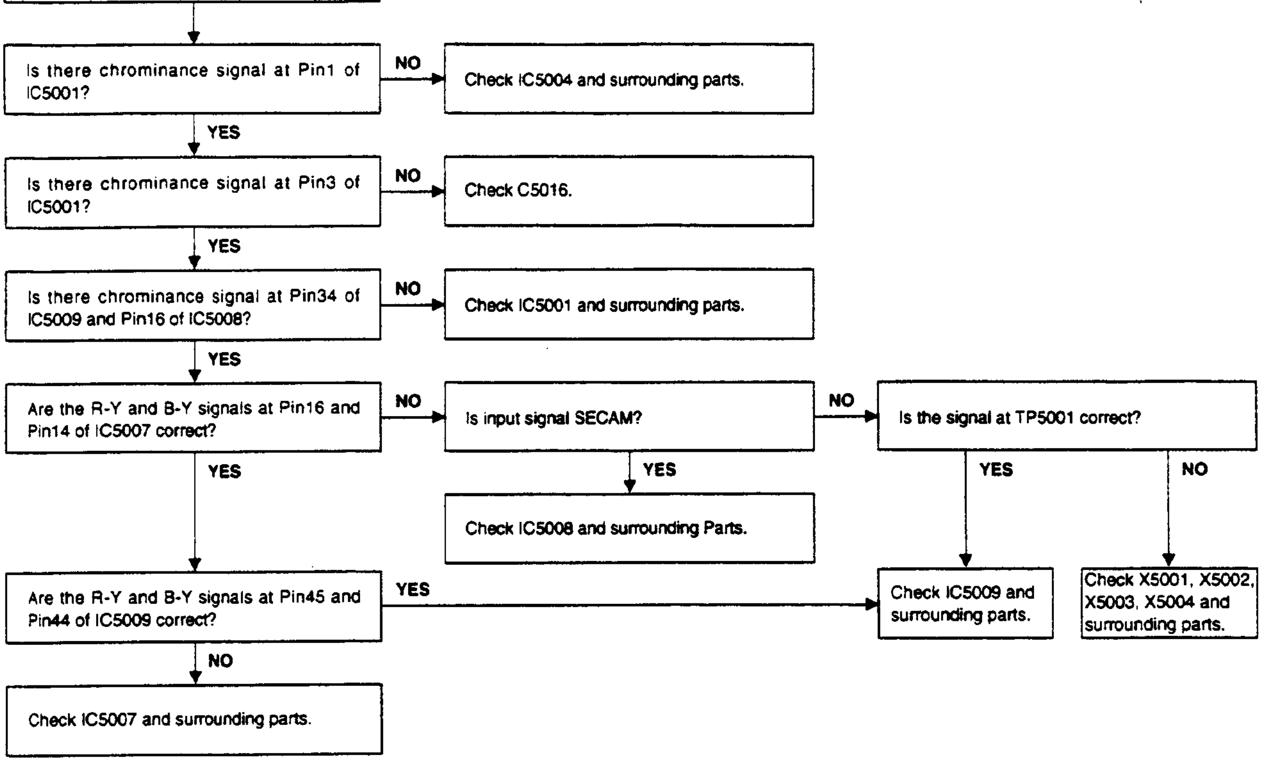
STATUS CODE	Symptom	Problem	Possible Solution
L-n	Lamp does not light up.	• There is the possibility that Lamp is burned-out.	• Wait until the Lamp Unit has cooled off (approx. 5 minutes) and try to turn the power back on. • If this code appears, try above again and again. • If this code appears continuously more than 5 or 6 times, replace the Lamp Unit. • If this code appears again after replacement of the Lamp Unit, replace Main Power C.B.A.
P-2		• Lamp Voltage is not correct.	• **Replace the Lamp Unit.**
P-3	Abnormally high internal temperature.	• Abnormal temperature rise.	• Check if Power Fan is rotating or not.  Is Power Fan rotating YES Replace the Main Power C.B.A. NO Is the voltage at Pin 1 of P1802 19.5V ? OK Replace the Power Fan NG Replace the Main Power C.B.A.
P-4		• Other cause.	• **Replace the Main Power C.B.A.**
L-1	Lamp operation time is over 1000 hours.	• It is nearly time to replace the Lamp Unit.	• **Replace the Lamp unit.**
L-0	Lamp operation time is over 1100 hours.	• The Lamp Unit must be replaced.	
C-d	Forced cooling fan operating to expedite lamp replacement.	——	——

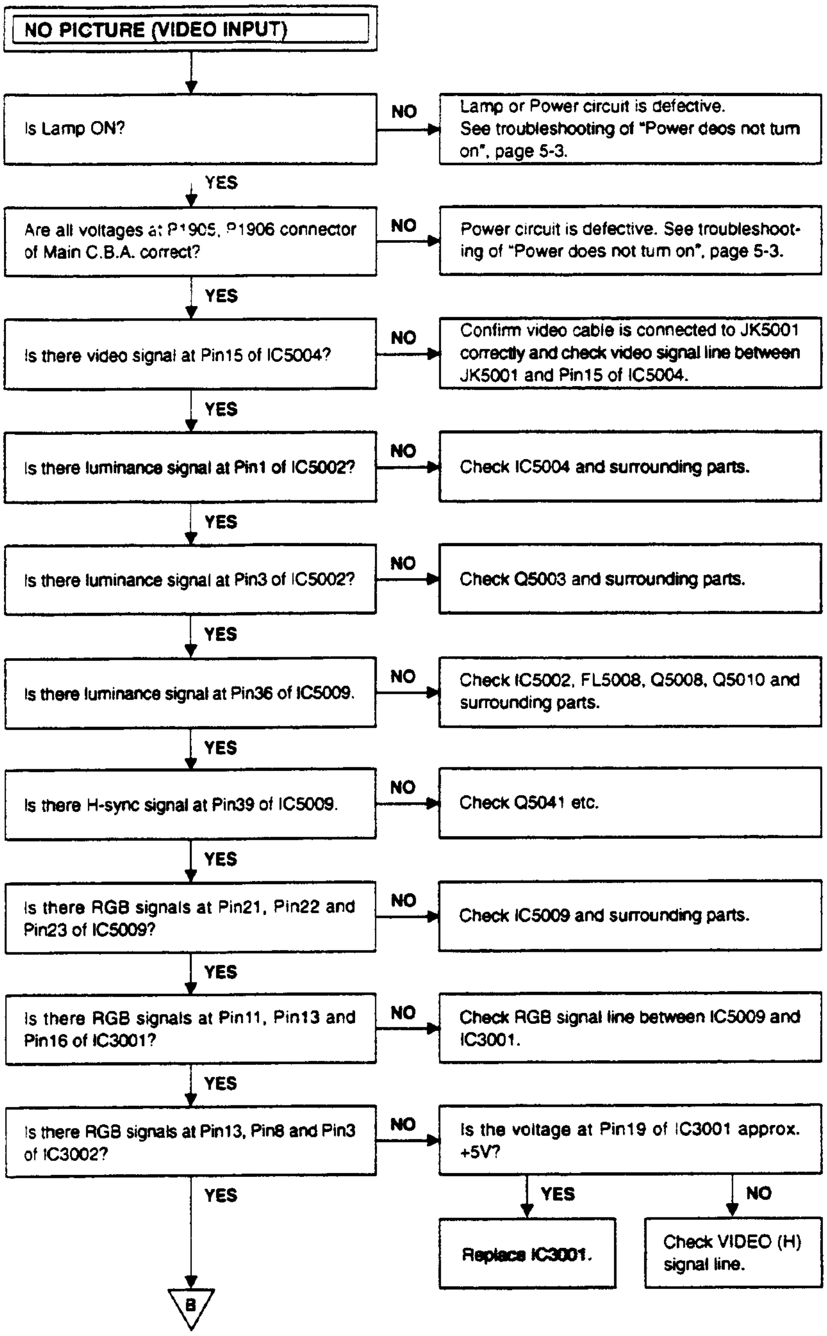
Caution:
Use a separate Isolation Transformer for this unit when servicing.

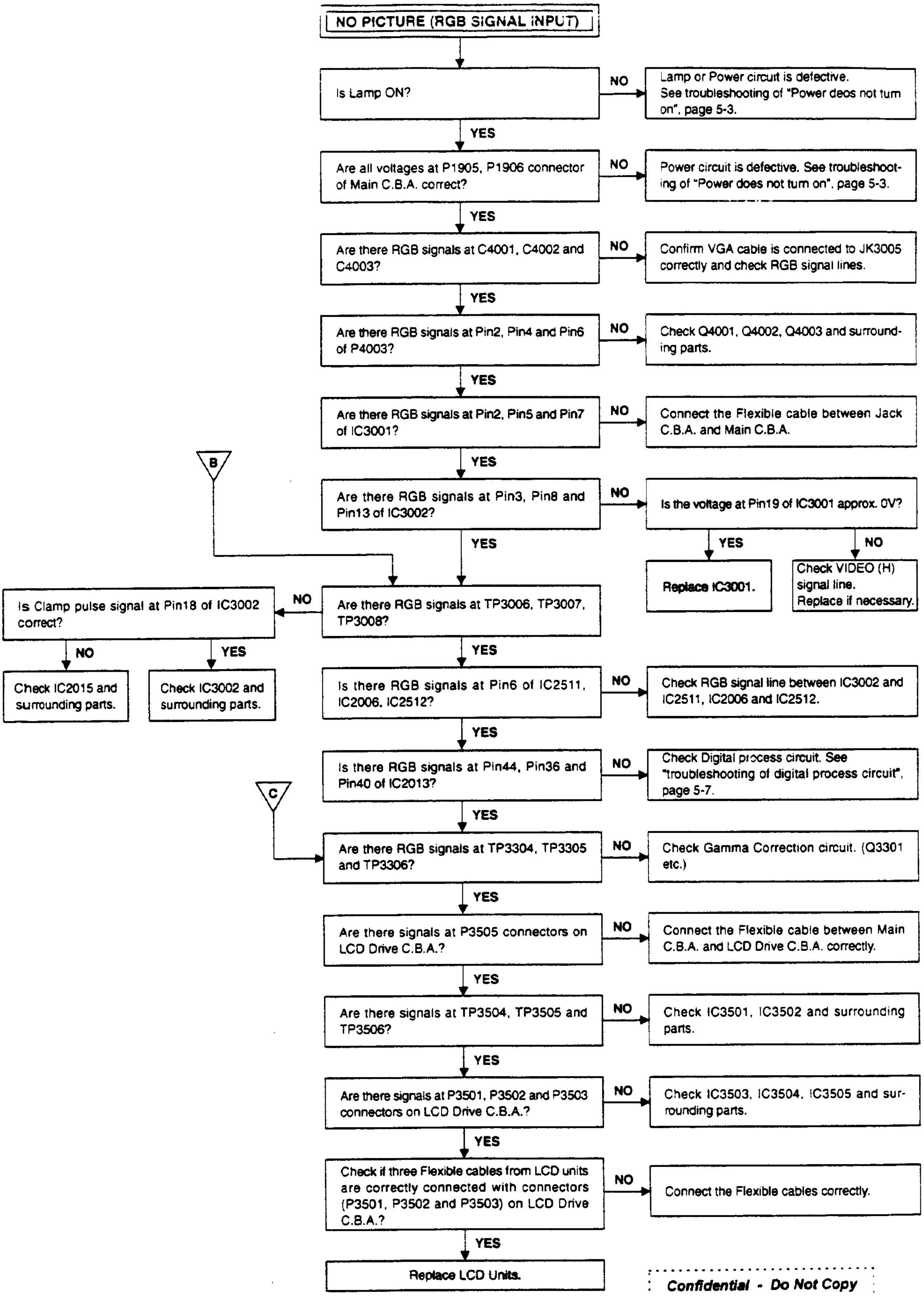
Because a Hot Chassis Ground is present in the Main Power Circuit, an Isolation Transformer must be used.

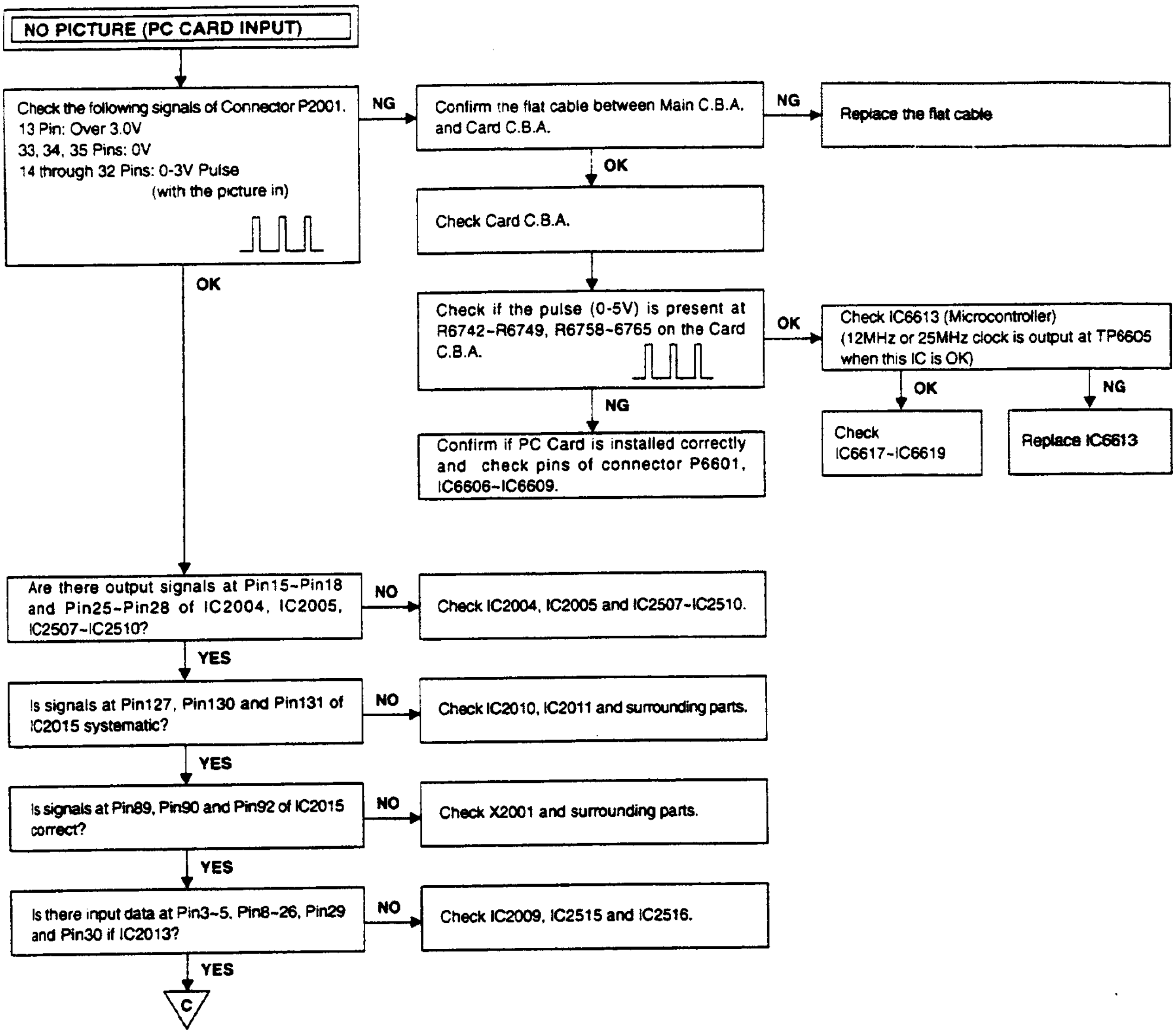

POWER DOES NOT TURN ON
Turn the Power ON
Lamp does not light up
Is Lamp fan turning?
NO
Does the Power LED on the Power button light Red or Green (Solid or flashing light)?
NO
Press the Main Power off and wait for approx. 5 minutes.
Press the Main Power ON.
YES
Is the signal (Lamp ON-H) at Pin 1 of P1901 High (approx. 1.1V)? Use Pin 3 as GND
NO
Check Lamp ON-H signal at Pin 49 of IC6007 (approx. 5V).
OK
Press the Main Power off and disconnect connector P1901 on the Main C.B.A. Is the signal (Lamp ON-H) at Pin 1 of P1901 High (approx. 5V) ? Use Pin 3 as GND
NG
Check Q6001 and surrounding parts on Main C.B.A. And also check PR1901, PR1902, PR1903 and PR1905 on Main C.B.A.
OK
YES
Is there a slight cracking sound when voltage is generated for Lamp?
YES
NO
Replace Lamp Unit
Is Lamp ON?
NO
YES
Check PR1901, PR1902, PR1903 and PR1905 on Main C.B.A.
A
OK
Check IC6007 etc on Main C.B.A.
NG
Replace defective Protectors. Then, perform short circuit check. (Check TP1901-TP1906 and GND)
NG
Check and find cause of short circuit on Main C.B.A. for repair.
Is there any sound of reay on?
YES
Is Power Fan turning ?
YES
Check the voltage at following pins of connector P1905. Pin 2-Pin 8 (GND): approx. 16V Pin 3-Pin 8 (GND): approx. 5V Note: Disconnect connectors P1905 and P1906 to check above voltage if you checked ⊛ previ-ously.
NO
YES
Check the voltage at following pin of connector P1906. Pin 1-Pin 3 (GND): approx. 12V Note: Disconnect connectors P1905 and P1906 to check above voltage if you checked ⊛ previ-ously.
A
YES
NO
Check IC1802, IC1803, IC1804 etc. on the Fan Drive C.B.A.
NO
⊛ Press the Main Power off and disconnect Connectors P1905 and P1906 on the Main C.B.A. Wait approx. 5 minutes and press the Main Power back ON.
⊛ Is there any sound of relay on with connectors P1905 and P1906 disconnected?
NO
YES
⊛ Is Power Fan turning with connectors P1905 and P1906 disconnected?
YES
NO
NO
Check Temperature Fise Unit
OK
NG
Replace Temperature Fuse Unit
OK
Check Fuse (F1101, F1102) on Inlt C.B.A.
NG
Replace defective fuse and Main Power C.B.A.
Replace Main Power C.B.A.

NO COLOR (VIDEO INPUT)

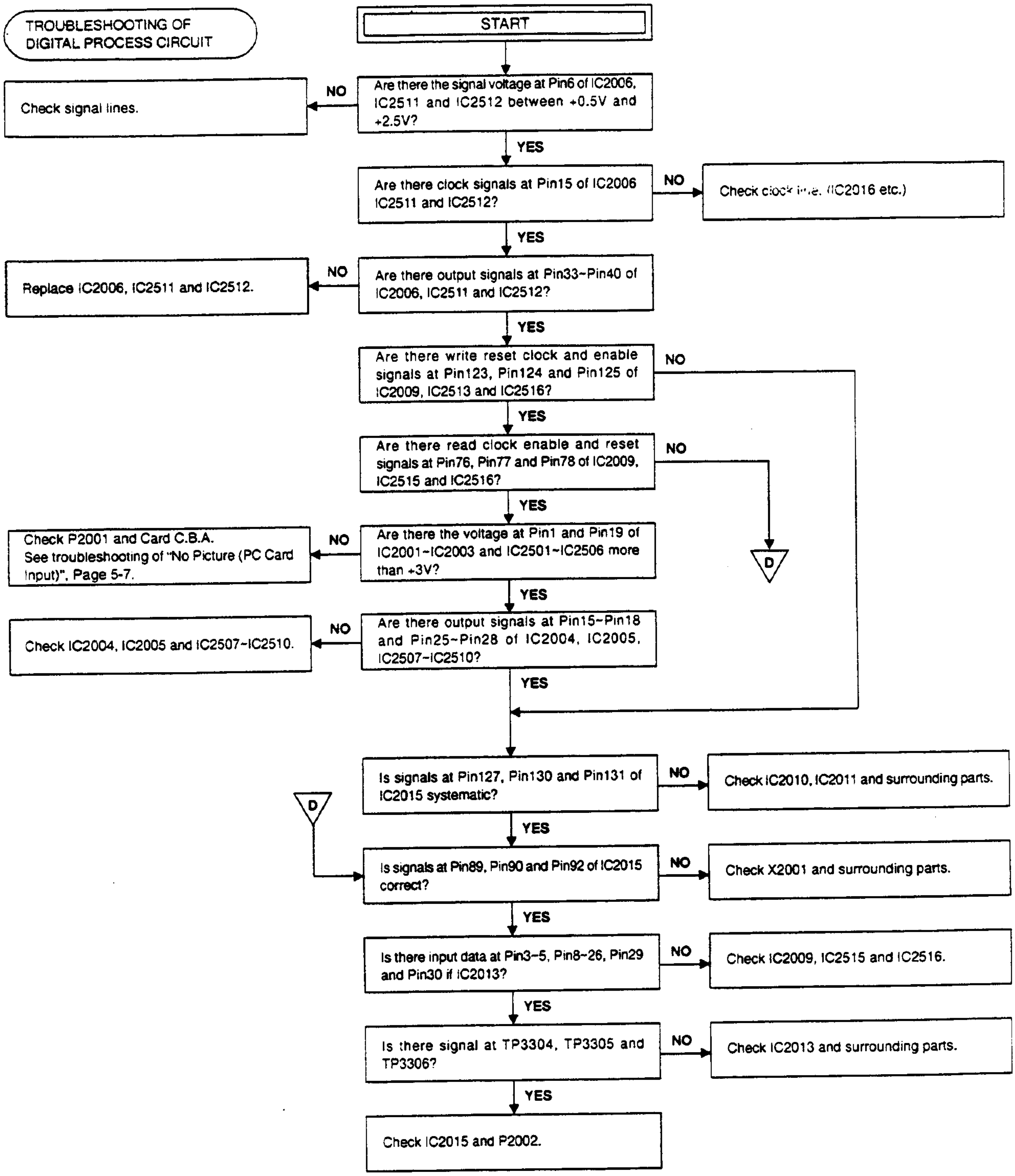

Is there chrominance signal at Pin1 of IC5001?
NO
Check IC5004 and surrounding parts.
YES
Is there chrominance signal at Pin3 of IC5001?
NO
Check C5016.
YES
Is there chrominance signal at Pin34 of IC5009 and Pin16 of IC5008?
NO
Check IC5001 and surrounding parts.
YES
Are the R-Y and B-Y signals at Pin16 and Pin14 of IC5007 correct?
NO
Is input signal SECAM?
NO
Is the signal at TP5001 correct?
YES
Check IC5008 and surrounding Parts.
YES
NO
YES
Are the R-Y and B-Y signals at Pin45 and Pin44 of IC5009 correct?
YES
Check IC5009 and surrounding parts.
Check X5001, X5002, X5003, X5004 and surrounding parts.
NO
Check IC5007 and surrounding parts.


NO PICTURE (VIDEO INPUT)
Is Lamp ON?
NO
Lamp or Power circuit is defective. See troubleshooting of "Power deos not turn on", page 5-3.
YES
Are all voltages at P1905, P1906 connector of Main C.B.A. correct?
NO
Power circuit is defective. See troubleshooting of "Power does not turn on", page 5-3.
YES
Is there video signal at Pin15 of IC5004?
NO
Confirm video cable is connected to JK5001 correctly and check video signal line between JK5001 and Pin15 of IC5004.
YES
Is there luminance signal at Pin1 of IC5002?
NO
Check IC5004 and surrounding parts.
YES
Is there luminance signal at Pin3 of IC5002?
NO
Check Q5003 and surrounding parts.
YES
Is there luminance signal at Pin36 of IC5009.
NO
Check IC5002, FL5008, Q5008, Q5010 and surrounding parts.
YES
Is there H-sync signal at Pin39 of IC5009.
NO
Check Q5041 etc.
YES
Is there RGB signals at Pin21, Pin22 and Pin23 of IC5009?
NO
Check IC5009 and surrounding parts.
YES
Is there RGB signals at Pin11, Pin13 and Pin16 of IC3001?
NO
Check RGB signal line between IC5009 and IC3001.
YES
Is there RGB signals at Pin13, Pin8 and Pin3 of IC3002?
NO
Is the voltage at Pin19 of IC3001 approx. +5V?
YES
Replace IC3001.
NO
Check VIDEO (H) signal line.
YES
B


NO PICTURE (RGB SIGNAL INPUT)
Is Lamp ON?
NO
Lamp or Power circuit is defective. See troubleshooting of "Power deos not turn on", page 5-3.
YES
Are all voltages at P1905, P1906 connector of Main C.B.A. correct?
NO
Power circuit is defective. See troubleshooting of "Power does not turn on", page 5-3.
YES
Are there RGB signals at C4001, C4002 and C4003?
NO
Confirm VGA cable is connected to JK3005 correctly and check RGB signal lines.
YES
Are there RGB signals at Pin2, Pin4 and Pin6 of P4003?
NO
Check Q4001, Q4002, Q4003 and surrounding parts.
YES
Are there RGB signals at Pin2, Pin5 and Pin7 of IC3001?
NO
Connect the Flexible cable between Jack C.B.A. and Main C.B.A.
YES
B
Are there RGB signals at Pin3, Pin8 and Pin13 of IC3002?
NO
Is the voltage at Pin19 of IC3001 approx. 0V?
YES
Replace IC3001.
NO
Check VIDEO (H) signal line. Replace if necessary.
YES
Are there RGB signals at TP3006, TP3007, TP3008?
NO
Is Clamp pulse signal at Pin18 of IC3002 correct?
NO
Check IC2015 and surrounding parts.
YES
Check IC3002 and surrounding parts.
YES
Is there RGB signals at Pin6 of IC2511, IC2006, IC2512?
NO
Check RGB signal line between IC3002 and IC2511, IC2006 and IC2512.
YES
Is there RGB signals at Pin44, Pin36 and Pin40 of IC2013?
NO
Check Digital process circuit. See "troubleshooting of digital process circuit", page 5-7.
YES
C
Are there RGB signals at TP3304, TP3305 and TP3306?
NO
Check Gamma Correction circuit. (Q3301 etc.)
YES
Are there signals at P3505 connectors on LCD Drive C.B.A.?
NO
Connect the Flexible cable between Main C.B.A. and LCD Drive C.B.A. correctly.
YES
Are there signals at TP3504, TP3505 and TP3506?
NO
Check IC3501, IC3502 and surrounding parts.
YES
Are there signals at P3501, P3502 and P3503 connectors on LCD Drive C.B.A.?
NO
Check IC3503, IC3504, IC3505 and surrounding parts.
YES
Check if three Flexible cables from LCD units are correctly connected with connectors (P3501, P3502 and P3503) on LCD Drive C.B.A.?
NO
Connect the Flexible cables correctly.
YES
Replace LCD Units.


NO PICTURE (PC CARD INPUT)
Check the following signals of Connector P2001.
13 Pin: Over 3.0V
33, 34, 35 Pins: 0V
14 through 32 Pins: 0-3V Pulse
(with the picture in)
NG
Confirm the flat cable between Main C.B.A. and Card C.B.A.
NG
Replace the flat cable
OK
Check Card C.B.A.
Check if the pulse (0-5V) is present at R6742~R6749, R6758~6765 on the Card C.B.A.
OK
Check IC6613 (Microcontroller)
(12MHz or 25MHz clock is output at TP6605 when this IC is OK)
OK
Check IC6617~IC6619
NG
Replace IC6613
NG
Confirm if PC Card is installed correctly and check pins of connector P6601, IC6606~IC6609.
OK
Are there output signals at Pin15~Pin18 and Pin25~Pin28 of IC2004, IC2005, IC2507~IC2510?
NO
Check IC2004, IC2005 and IC2507~IC2510.
YES
Is signals at Pin127, Pin130 and Pin131 of IC2015 systematic?
NO
Check IC2010, IC2011 and surrounding parts.
YES
Is signals at Pin89, Pin90 and Pin92 of IC2015 correct?
NO
Check X2001 and surrounding parts.
YES
Is there input data at Pin3~5, Pin8~26, Pin29 and Pin30 if IC2013?
NO
Check IC2009, IC2515 and IC2516.
YES
C

TROUBLESHOOTING OF DIGITAL PROCESS CIRCUIT

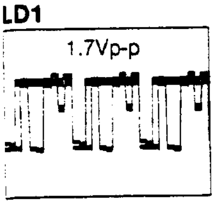

START
Are there the signal voltage at Pin6 of IC2006, IC2511 and IC2512 between +0.5V and +2.5V?
NO
Check signal lines.
YES
Are there clock signals at Pin15 of IC2006 IC2511 and IC2512?
NO
Check clock line. (IC2016 etc.)
YES
Are there output signals at Pin33~Pin40 of IC2006, IC2511 and IC2512?
NO
Replace IC2006, IC2511 and IC2512.
YES
Are there write reset clock and enable signals at Pin123, Pin124 and Pin125 of IC2009, IC2513 and IC2516?
NO
YES
Are there read clock enable and reset signals at Pin76, Pin77 and Pin78 of IC2009, IC2515 and IC2516?
NO
D
YES
Are there the voltage at Pin1 and Pin19 of IC2001~IC2003 and IC2501~IC2506 more than +3V?
NO
Check P2001 and Card C.B.A. See troubleshooting of "No Picture (PC Card Input)", Page 5-7.
YES
Are there output signals at Pin15~Pin18 and Pin25~Pin28 of IC2004, IC2005, IC2507~IC2510?
NO
Check IC2004, IC2005 and IC2507~IC2510.
YES
Is signals at Pin127, Pin130 and Pin131 of IC2015 systematic?
NO
Check IC2010, IC2011 and surrounding parts.
YES
D
Is signals at Pin89, Pin90 and Pin92 of IC2015 correct?
NO
Check X2001 and surrounding parts.
YES
Is there input data at Pin3~5, Pin8~26, Pin29 and Pin30 if IC2013?
NO
Check IC2009, IC2515 and IC2516.
YES
Is there signal at TP3304, TP3305 and TP3306?
NO
Check IC2013 and surrounding parts.
YES
Check IC2015 and P2002.

VOLTAGE CHART OF LCD DRIVE SCHEMATIC DIAGRAM

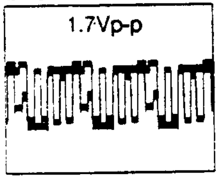
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
IC3501		33	7.1	14	7.0	**Q3509**		**Q3527**		**Q3538**		**Q3549**		**Q3566**		**Q3575**		**P3501**		**P3503**		24	0.4
1	10.6	34	7.0	15	7.0	1	11.7	1	14.1	1	14.1	1	14.1	1	7.6	1	5.1	1	0	1	0	25	2.1
2	7.0	35	7.1	16	7.0	2	1.5	2	3.5	2	3.0	2	3.5	2	15.1	2	15.2	2	0	2	0	26	2.1
3	7.0	36	7.0	17	1.2	3	1.5	3	4.1	3	3.6	3	4.1	3	15.2	3	15.2	3	0	3	0	27	5.1
4	3.5	37	7.1	18	3.8	4	2.9	4	0	4	0	4	0	4	7.6	4	5.7	4	3.6	4	3.6	28	3.3
5	7.3	38	7.0	19	0.4	5	2.1	5	4.1	5	3.5	5	4.1	5	0.1	5	0.3	5	3.6	5	3.6	29	1.6
6	7.3	39	1.2	20	0.4	6	1.5	6	3.6	6	3.0	6	3.6	6	0	6	0	6	5.9	6	5.8	30	1.6
7	0	40	0.4	21	0.4	**Q3510**		**Q3528**		**Q3539**		**Q3550**		**Q3567**		**Q3576**		7	0	7	0	31	0.1
8	3.8	**IC3504**		22	4.9	E	3.5	1	14.1	1	14.1	1	14.1	1	8.3	1	5.1	8	7.1	8	0	32	0
9	7.0	1	0.4	23	7.1	C	0	2	3.0	2	3.5	2	3.0	2	15.0	2	15.2	9	7.1	9	7.1	33	0
10	7.0	2	0.4	24	7.0	B	2.9	3	3.6	3	4.1	3	3.6	3	15.1	3	15.2	10	7.1	10	7.1	34	0
11	10.2	3	0.4	25	7.0	**Q3511**		4	0	4	0	4	0	4	8.4	4	5.7	11	7.1	11	7.1	35	10.2
12	7.3	4	7.0	26	7.0	E	10.6	5	3.5	5	4.1	5	3.5	5	0.3	5	0.3	12	7.1	12	7.1	36	0
13	7.3	5	7.0	27	7.1	C	1.6	6	3.0	6	3.6	6	3.0	6	0	6	0	13	7.1	13	7.1	37	0
14	14.1	6	7.0	28	7.0	B	10.0	**Q3529**		**Q3540**		**Q3551**		**Q3568**		**Q3577**		14	0	14	0	38	0
IC3502		7	7.0	29	0	**Q3512**		1	14.1	1	14.1	E	0	1	8.3	1	7.6	15	0	15	0	39	10.2
1	10.3	8	7.0	30	0	E	1.6	2	3.5	2	3.0	C	7.3	2	15.0	2	15.1	16	0	16	0	40	0
2	7.0	9	0	31	0	C	8.4	3	4.1	3	3.6	B	0.3	3	15.1	3	15.2	17	15.2	17	15.2		
3	7.0	10	0	32	15.1	B	2.3	4	0	4	0	**Q3552**		4	8.4	4	7.6	18	-0.2	18	-0.2	**TP3501**	10.2
4	3.7	11	0	33	7.1	**Q3513**		5	4.1	5	3.5	E	0	5	0.3	5	0.1	19	8.3	19	8.4	**TP3502**	10.2
5	7.3	12	15.1	34	7.0	E	7.8	6	3.6	6	3.0	C	7.2	6	0	6	0	20	8.3	20	8.5	**TP3503**	10.0
6	7.3	13	7.0	35	7.1	C	11.7	**Q3530**		**Q3541**		B	0.3	**Q3569**		**Q3578**		21	0	21	0	**TP3504**	7.0
7	0	14	7.0	36	7.0	B	8.4	1	14.1	E	3.0	**Q3553**		1	5.3	1	7.6	22	5.2	22	5.5	**TP3505**	7.0
8	1.9	15	7.0	37	7.1	**Q3514**		2	3.0	C	11.1	E	0	2	15.2	2	15.1	23	5.3	23	5.3	**TP3506**	7.0
9	3.5	16	7.0	38	7.0	1	11.7	3	3.6	B	3.8	C	0	3	15.1	3	15.2	24	5.9	24	5.8	**TP3507**	7.1
10	3.5	17	1.2	39	1.2	2	1.5	4	0	**Q3542**		B	0.6	4	5.8	4	7.6	25	0	25	0	**TP3508**	7.0
11	5.1	18	3.9	40	0.4	3	1.5	5	3.5	E	3.7	**Q3561**		5	0.3	5	0.1	26	2.0	26	1.9	**TP3509**	7.1
12	7.3	19	0.4			4	3.1	6	3.0	C	0	1	8.4	6	0	6	0	27	15.2	27	15.2	**TP3510**	5.9
13	7.3	20	0.4	**Q3501**		5	2.1	**Q3531**		B	3.0	2	15.0	**Q3570**		**Q3579**		28	7.6	28	7.6	**TP3511**	5.8
14	14.1	21	0.4	E	10.8	6	1.5	E	2.8	**Q3543**		3	15.1	1	5.3	1	2.0	29	7.6	29	7.6	**TP3512**	5.8
IC3503		22	4.9	C	1.5	**Q3515**		C	11.3	E	3.7	4	8.4	2	15.2	2	15.4	30	0	30	0.1	**TP3513**	3.6
1	0.4	23	7.0	B	10.2	E	3.8	B	3.5	C	14.1	5	0.3	3	15.2	3	15.2	**P3502**		**P3504**		**TP3514**	0
2	0.4	24	7.0	**Q3502**		C	0	**Q3532**		B	4.3	6	0	4	5.8	4	2.0	1	0	1	14.1		
3	0.4	25	7.0	E	1.5	B	3.2	E	3.4	**Q3544**		**Q3562**		5	0.3	5	0.4	2	0	2	15.2		
4	7.0	26	7.0	C	8.0	**Q3516**		C	0	E	10.3	1	8.4	6	0	6	0	3	0	3	11.8		
5	7.0	27	7.0	B	2.2	E	2.8	B	2.8	C	14.1	2	15.0	**Q3571**		**Q3580**		4	3.6	4	5.0		
6	7.0	28	7.0	**Q3503**		C	11.7	**Q3533**		B	11.1	3	15.1	1	7.6	1	-0.2	5	3.6	5	0		
7	7.0	29	0	E	7.3	B	3.3	E	3.5	**Q3545**		4	8.4	2	15.1	2	15.3	6	5.8	6	0		
8	7.0	30	0	C	11.7	**Q3521**		C	14.1	E	10.3	5	0.3	3	15.2	3	15.2	7	0	7	0		
9	0	31	0	B	8.0	E	3.1	B	4.1	C	0	6	0	4	7.6	4	-0.2	8	7.0	**P3505**			
10	0	32	15.1	**Q3504**		C	10.9	**Q3534**		B	9.7	**Q3563**		5	0.1	5	0.3	9	7.1	1	0		
11	0	33	7.0	1	11.7	B	3.8	E	10.6	**Q3546**		1	5.0	6	0	6	0	10	7.0	2	10.0		
12	15.1	34	7.0	2	2.0	**Q3522**		C	14.1	E	0	2	15.2	**Q3572**		**Q3581**		11	7.0	3	0		
13	7.0	35	7.0	3	2.1	E	3.7	B	11.3	C	6.3	3	15.1	1	7.6	1	0	12	7.0	4	0		
14	7.0	36	7.0	4	3.2	C	0	**Q3535**		B	0	4	5.6	2	15.1	2	14.9	13	7.0	5	0		
15	7.0	37	7.0	5	2.6	B	3.1	E	10.6	**Q3547**		5	0.3	3	15.2	3	15.2	14	0	6	5.1		
16	7.0	38	7.0	6	2.0	**Q3523**		C	0	1	14.1	6	0	4	7.6	4	0	15	0	7	0		
17	1.2	39	1.2	**Q3505**		E	3.8	B	9.9	2	3.5	**Q3564**		5	0	5	0.7	16	0	8	3.1		
18	3.8	40	0.4	E	3.8	C	14.1	**Q3536**		3	4.1	1	5.0	6	0	6	0	17	15.2	9	1.7		
19	0.4	**IC3505**		C	0	B	4.4	E	0	4	0	2	15.2	**Q3573**		**Q3582**		18	-0.2	10	1.7		
20	0.4	1	0.4	B	3.2	**Q3524**		C	6.4	5	4.1	3	15.1	1	8.4	1	0	19	8.4	11	2.1		
21	0.4	2	0.4	**Q3506**		E	10.3	B	0	6	3.6	4	5.7	2	15.0	2	0	20	8.3	12	2.1		
22	4.9	3	0.4	E	10.8	C	14.1	**Q3537**		**Q3548**		5	0.3	3	15.2	3	0	21	15.2	13	3.3		
23	7.0	4	7.0	C	1.6	B	10.9	1	14.1	1	14.1	6	0	4	8.4	4	15.2	22	5.6	14	1.3		
24	7.0	5	7.0	B	10.2	**Q3525**		2	3.5	2	3.0	**Q3565**		5	0.3	5	0.6	23	5.6	15	1.3		
25	7.1	6	7.0	**Q3507**		E	10.2	3	4.1	3	3.6	1	7.6	6	0	6	0	24	5.8	16	2.2		
26	7.0	7	7.0	E	1.6	C	0	4	0	4	0	2	15.1	**Q3574**		**Q3583**		25	0	17	2.2		
27	7.1	8	7.0	C	8.1	B	9.6	5	4.1	5	3.5	3	15.2	1	8.4	E	0	26	2.0	18	0.4		
28	7.0	9	0	B	2.3	**Q3526**		6	3.6	6	3.0	4	7.6	2	15.0	C	0	27	15.2	19	3.8		
29	0	10	0	**Q3508**		E	0					5	0.1	3	15.1	B	0.7	28	7.6	20	0.4		
30	0	11	0	E	7.4	C	6.3					6	0	4	8.5			29	7.6	21	0.4		
31	0	12	15.1	C	11.7	B	0							5	0.3			30	0	22	0.4		
32	15.1	13	7.0	B	8.1									6	0					23	0.4		

WAVEFORM OF LCD DRIVE SCHEMATIC DIAGRAM

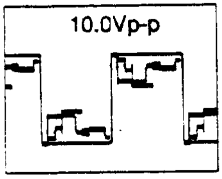
LD1



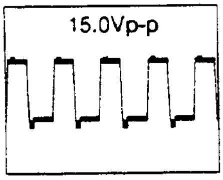
LD3



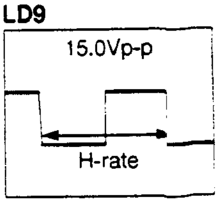
LD5



LD7



LD9



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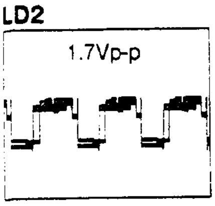

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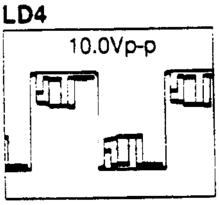
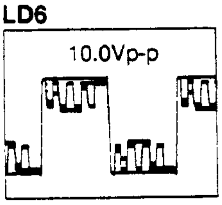
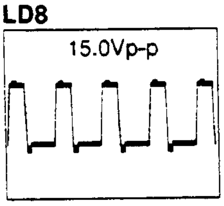


LD6

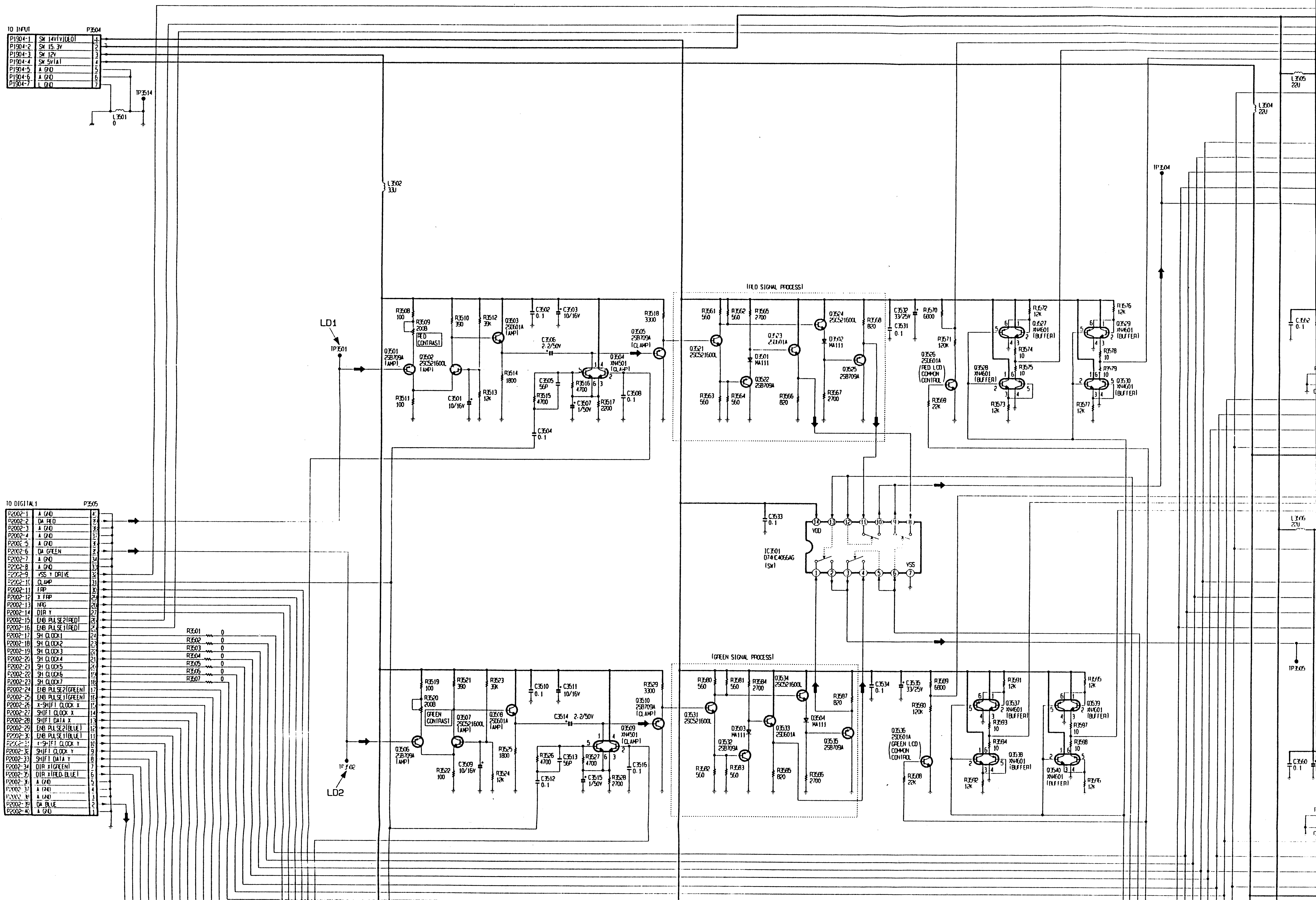


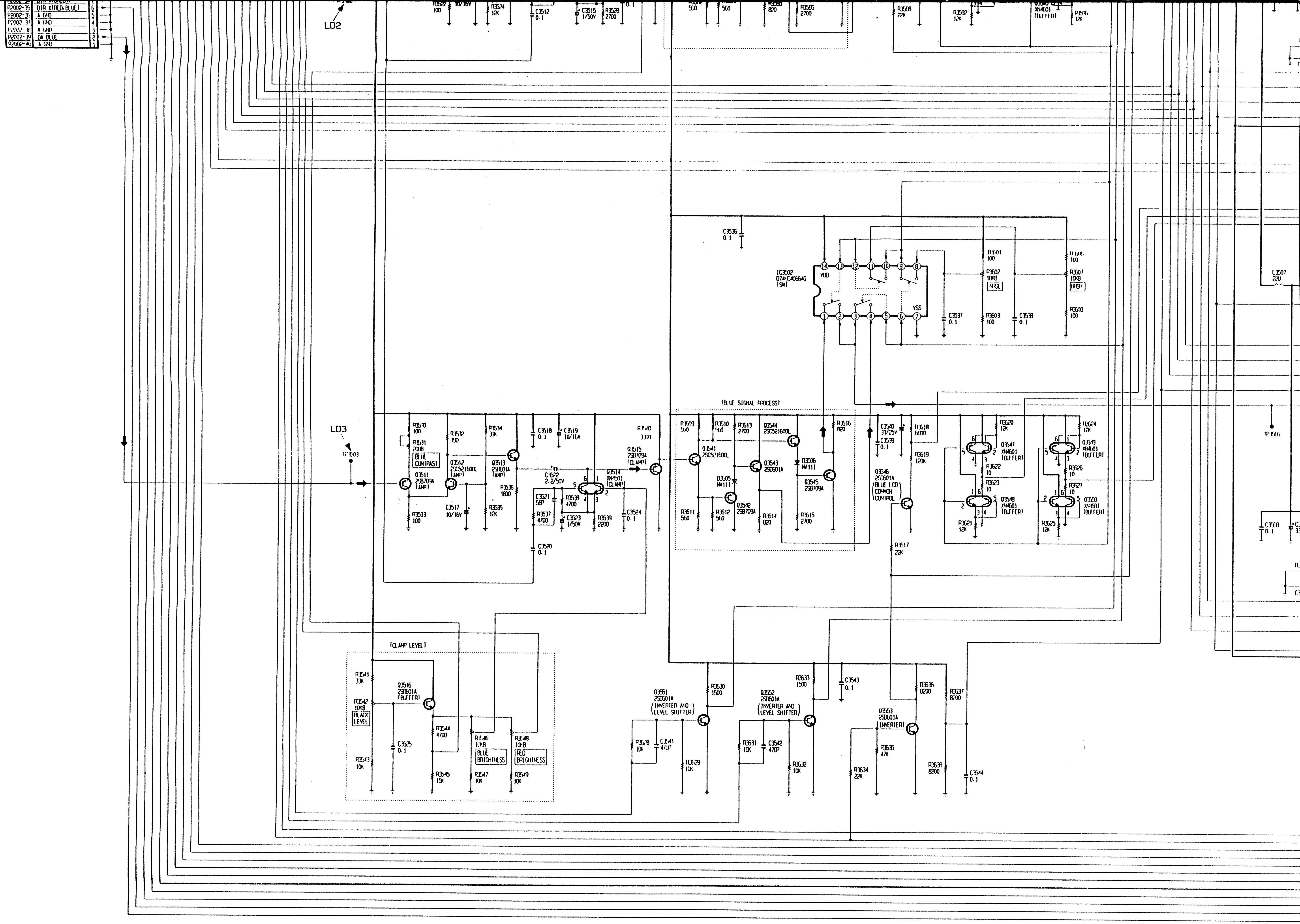
LD8

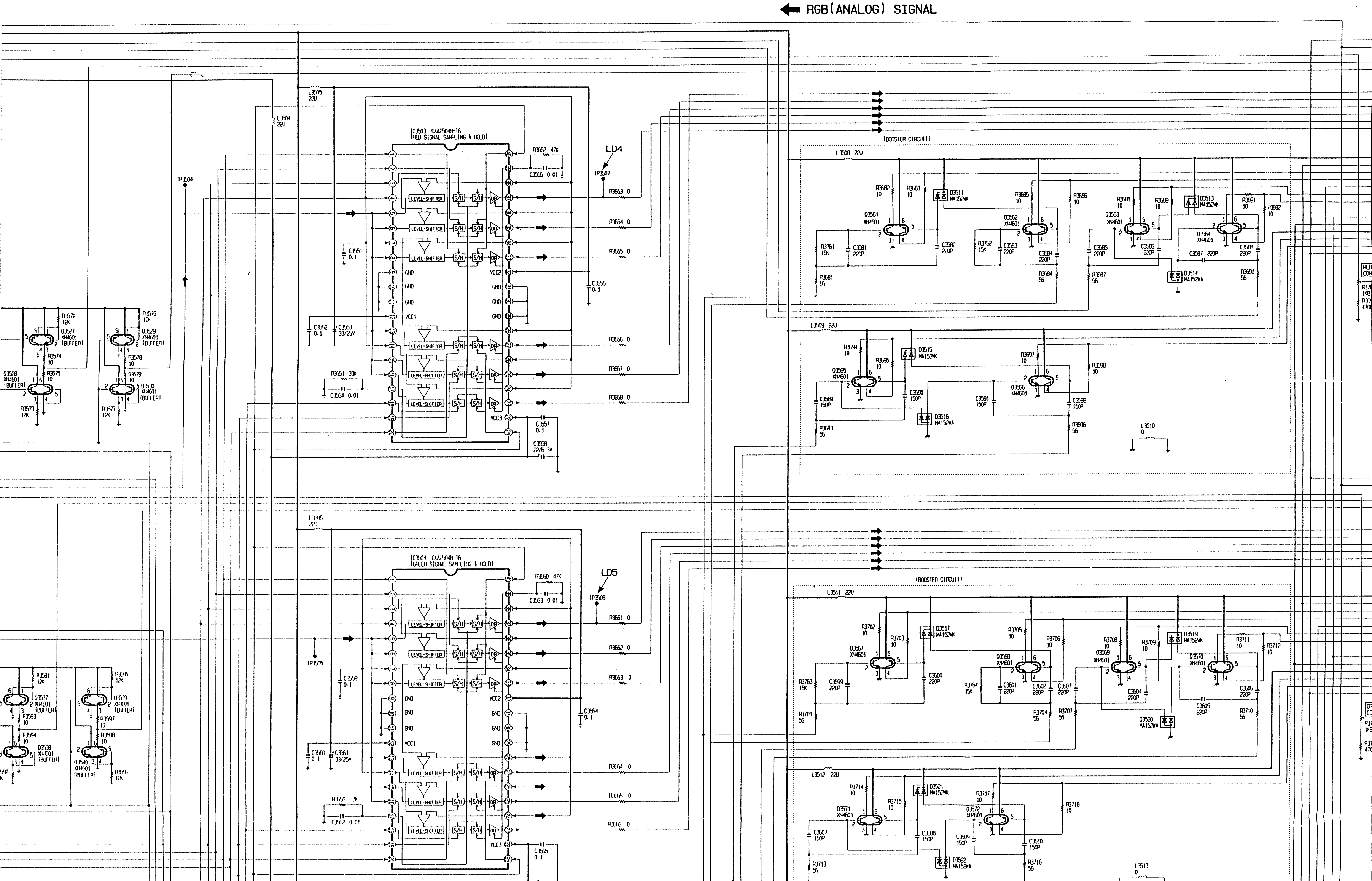


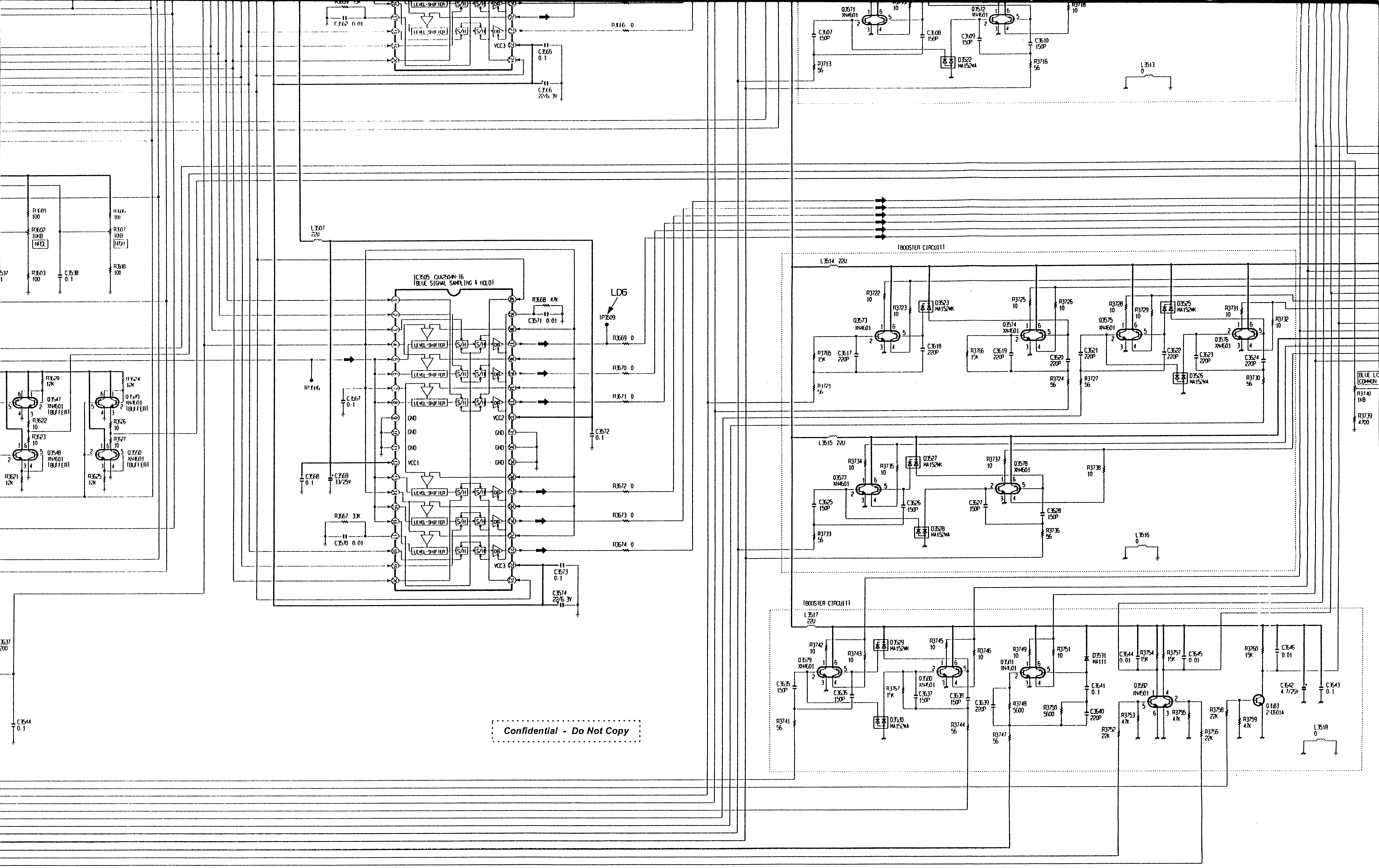
SCHEMATIC DIAGRAMS

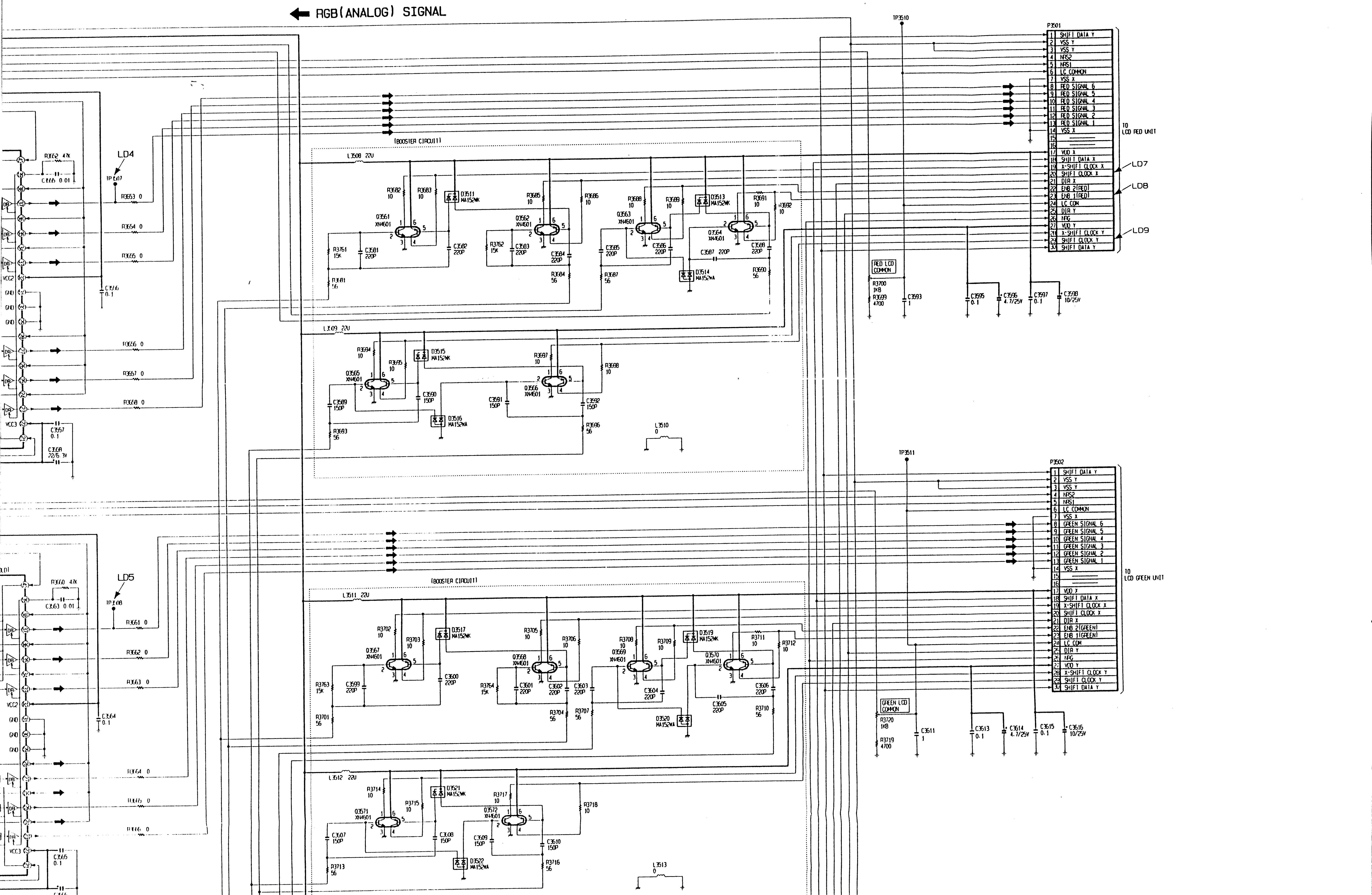
LCD DRIVE SCHEMATIC DIAGRAM

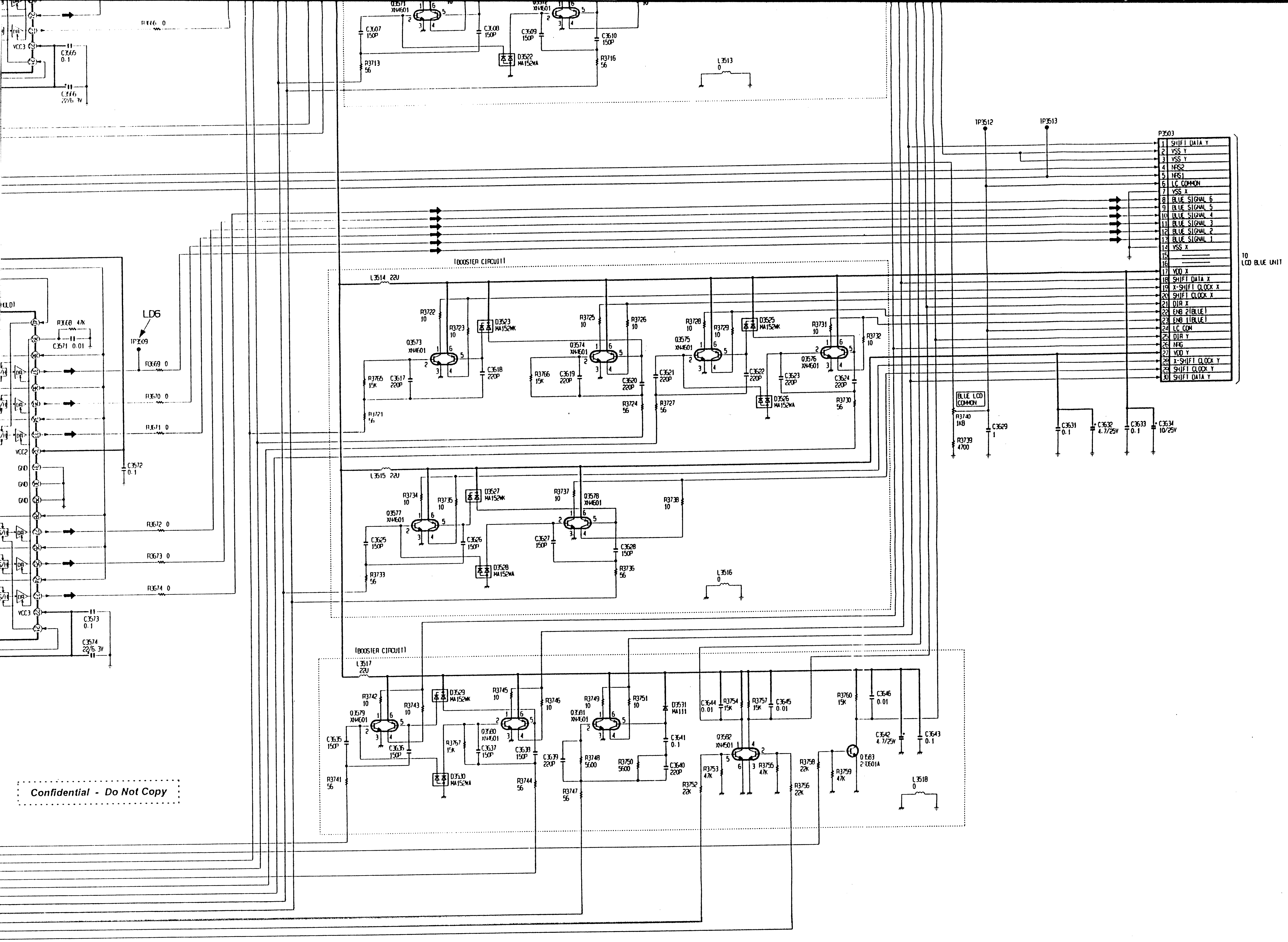

TO INPUT
P3504
P1904-1 SW 14V(VIDEO) 1
P1904-2 SW 15.3V 2
P1904-3 SW 12V 3
P1904-4 SW 5V(A) 4
P1904-5 A GND 5
P1904-6 A GND 6
P1904-7 L GND 7
TP3514
L3501 0
L3502 33U
TO DIGITAL1
P3505
P2002-1 A GND 40
P2002-2 DA RED 39
P2002-3 A GND 38
P2002-4 A GND 37
P2002-5 A GND 36
P2002-6 DA GREEN 35
P2002-7 A GND 34
P2002-8 A GND 33
P2002-9 VSS Y DRIVE 32
P2002-10 CLAMP 31
P2002-11 FRP 30
P2002-12 X FRP 29
P2002-13 NRG 28
P2002-14 DIR Y 27
P2002-15 ENB PULSE2(RED) 26
P2002-16 ENB PULSE1(RED) 25
P2002-17 SH CLOCK1 24
P2002-18 SH CLOCK2 23
P2002-19 SH CLOCK3 22
P2002-20 SH CLOCK4 21
P2002-21 SH CLOCK5 20
P2002-22 SH CLOCK6 19
P2002-23 SH CLOCK7 18
P2002-24 ENB PULSE2(GREEN) 17
P2002-25 ENB PULSE1(GREEN) 16
P2002-26 X-SHIFT CLOCK X 15
P2002-27 SHIFT CLOCK X 14
P2002-28 SHIFT DATA X 13
P2002-29 ENB PULSE2(BLUE) 12
P2002-30 ENB PULSE1(BLUE) 11
P2002-31 X-SHIFT CLOCK Y 10
P2002-32 SHIFT CLOCK Y 9
P2002-33 SHIFT DATA Y 8
P2002-34 DIR X(GREEN) 7
P2002-35 DIR X(RED.BLUE) 6
P2002-36 A GND 5
P2002-37 A GND 4
P2002-38 A GND 3
P2002-39 DA BLUE 2
P2002-40 A GND 1
R3501 0
R3502 0
R3503 0
R3504 0
R3505 0
R3506 0
R3507 0
LD1
TP3501
LD2
TP3502
R3508 100
R3509 200B
RED CONTRAST
R3510 390
R3512 39K
Q3503 2SD601A (AMP)
C3502 0.1
C3503 10/16V
R3518 3300
Q3501 2SB709A (AMP)
Q3502 2SC521600L (AMP)
C3506 2.2/50V
Q3505 2SB709A (CLAMP)
Q3504 XN4501 (CLAMP)
R3514 1800
C3505 56P
R3515 4700
R3516 4700
C3507 1/50V
R3517 2200
C3508 0.1
R3511 100
C3501 10/16V
R3513 12K
C3504 0.1
(RED SIGNAL PROCESS)
R3561 560
R3562 560
R3565 2700
Q3524 2SC521600L
R3568 820
Q3521 2SC521600L
Q3523 2SD601A
D3502 MA111
D3501 MA111
Q3525 2SB709A
Q3522 2SB709A
R3563 560
R3564 560
R3566 820
R3567 2700
C3532 33/25V
C3531 0.1
R3570 6800
R3571 120K
Q3526 2SD601A (RED LCD COMMON CONTROL)
R3569 22K
R3572 12K
Q3527 XN4601 (BUFFER)
R3574 10
R3575 10
Q3528 XN4601 (BUFFER)
R3573 12K
R3576 12K
Q3529 XN4601 (BUFFER)
R3578 10
R3579 10
Q3530 XN4601 (BUFFER)
R3577 12K
TP3504
L3504 22U
L3505 22U
C3562 0.1
C3533 0.1
IC3501 D74HC4066AG (SW)
VDD
VSS
L3506 22U
TP3505
C3560 0.1
R3519 100
R3520 200B
GREEN CONTRAST
R3521 390
R3523 39K
Q3508 2SD601A (AMP)
C3510 0.1
C3511 10/16V
R3529 3300
Q3510 2SB709A (CLAMP)
Q3506 2SB709A (AMP)
Q3507 2SC521600L (AMP)
C3514 2.2/50V
Q3509 XN4501 (CLAMP)
R3525 1800
R3526 4700
C3513 56P
R3527 4700
C3516 0.1
R3522 100
C3509 10/16V
R3524 12K
C3512 0.1
C3515 1/50V
R3528 2700
(GREEN SIGNAL PROCESS)
R3580 560
R3581 560
R3584 2700
Q3534 2SC521600L
R3587 820
Q3531 2SC521600L
D3503 MA111
Q3533 2SD601A
D3504 MA111
Q3532 2SB709A
Q3535 2SB709A
R3582 560
R3583 560
R3585 820
R3586 2700
C3534 0.1
C3535 33/25V
R3589 6800
R3590 120K
Q3536 2SD601A (GREEN LCD COMMON CONTROL)
R3588 22K
R3591 12K
Q3537 XN4601 (BUFFER)
R3593 10
R3594 10
Q3538 XN4601 (BUFFER)
R3592 12K
R3595 12K
Q3539 XN4601 (BUFFER)
R3597 10
R3598 10
Q3540 XN4601 (BUFFER)
R3596 12K


P2002-35 DIR X (RED, BLUE) 6
P2002-36 A GND 5
P2002-37 A GND 4
P2002-38 A GND 3
P2002-39 DA BLUE 2
P2002-40 A GND 1
LD2
R3522 100
10/16V
R3524 12K
C3512 0.1
C3515 1/50V
R3528 2700
R3505 2700
R3508 22K
C3536 0.1
IC3502 07#C4066AG (SW)
VDD
VSS
R3601 100
R3602 10KB NASL
R3603 100
C3537 0.1
C3538 0.1
R3606 100
R3607 10KB
R3608 100
L3507 22U
LD3
R3530 100
R3531 200B
BLUE CONTRAST
Q3511 2SB709A (AMP)
R3533 100
R3532 330
Q3512 2SC5216OOL (AMP)
C3517 10/16V
R3534 33K
Q3513 2SD601A (AMP)
R3536 1800
R3535 12K
C3518 0.1
C3519 10/16V
C3522 2.2/50V
C3521 56P
R3538 4700
R3537 4700
C3523 1/50V
Q3514 XN4501 (CLAMP)
R3539 2200
C3524 0.1
C3520 0.1
Q3515 2SB709A (CLAMP)
(BLUE SIGNAL PROCESS)
R3609 560
R3610 560
R3613 2700
Q3544 2SC5216OOL
Q3541 2SC5216OOL
Q3543 2SD601A
D3505 MA111
D3506 MA111
Q3542 2SB709A
Q3545 2SB709A
R3611 560
R3612 560
R3614 820
R3615 2700
R3616 820
C3540 33/25V
C3539 0.1
R3618 6800
R3619 120K
Q3546 2SD601A (BLUE LCD COMMON CONTROL)
R3617 22K
R3620 12K
Q3547 XN4601 (BUFFER)
R3622 10
R3623 10
Q3548 XN4601 (BUFFER)
R3621 12K
R3624 12K
Q3549 XN4601 (BUFFER)
R3626 10
R3627 10
Q3550 XN4601 (BUFFER)
R3625 12K
C3568 0.1
(CLAMP LEVEL)
R3541 33K
R3542 10KB
BLACK LEVEL
R3543 10K
Q3516 2SD601A (BUFFER)
C3525 0.1
R3544 4700
R3545 15K
R3546 10KB
BLUE BRIGHTNESS
R3547 10K
R3548 10KB
RED BRIGHTNESS
R3549 10K
Q3551 2SD601A (INVERTER AND LEVEL SHIFTER)
R3628 10K
C3541 47P
R3629 10K
R3630 1500
Q3552 2SD601A (INVERTER AND LEVEL SHIFTER)
R3631 10K
C3542 470P
R3632 10K
R3633 1500
C3543 0.1
Q3553 2SD601A (INVERTER)
R3634 22K
R3635 47K
R3636 8200
R3637 8200
R3638 8200
C3544 0.1

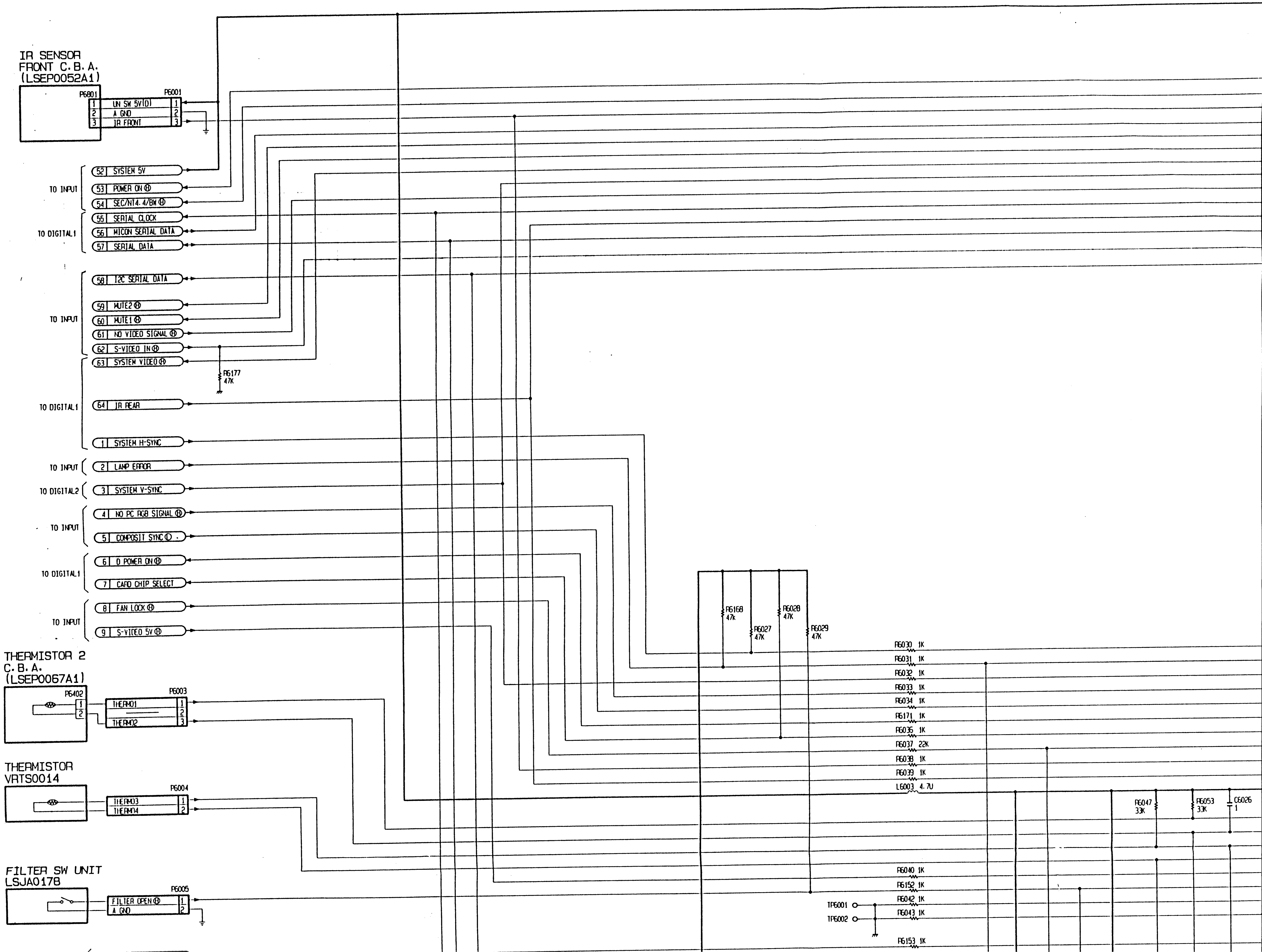

RGB(ANALOG) SIGNAL
L3505 22V
L3504 22V
IC3503 CXA2504N-16
(RED SIGNAL SAMPLING & HOLD)
LEVEL-SHIFTER
S/H
DR
GND
VCC1
VCC2
VCC3
R3652 47K
C3565 0.01
LD4
TP3507
TP3504
R3653 0
R3654 0
R3655 0
R3656 0
R3657 0
R3658 0
C3566 0.1
C3567 0.1
C3568 22/6.3V
C3561 0.1
C3562 0.1
C3563 33/25V
R3651 33K
C3564 0.01
(BOOSTER CIRCUIT)
L3508 22V
L3509 22V
L3510 0
R3682 10
R3683 10
D3511 MA152WK
Q3561 XN4601
R3761 15K
C3581 220P
C3582 220P
R3681 56
R3685 10
R3686 10
Q3562 XN4601
R3762 15K
C3583 220P
C3584 220P
R3684 56
R3688 10
R3689 10
Q3563 XN4601
D3513 MA152WK
C3585 220P
C3586 220P
R3687 56
D3514 MA152WA
R3691 10
R3692 10
Q3564 XN4601
C3587 220P
C3588 220P
R3690 56
R3694 10
R3695 10
D3515 MA152WK
Q3565 XN4601
C3589 150P
C3590 150P
R3693 56
D3516 MA152WA
R3697 10
R3698 10
Q3566 XN4601
C3591 150P
C3592 150P
R3696 56
R3572 12K
Q3527 XN4601 (BUFFER)
R3574 10
R3575 10
Q3528 XN4601 (BUFFER)
R3573 12K
R3576 12K
Q3529 XN4601 (BUFFER)
R3578 10
R3579 10
Q3530 XN4601 (BUFFER)
R3577 12K
L3506 22V
IC3504 CXA2504N-16
(GREEN SIGNAL SAMPLING & HOLD)
R3660 47K
C3563 0.01
LD5
TP3508
TP3505
R3661 0
R3662 0
R3663 0
R3664 0
R3665 0
R3666 0
C3564 0.1
C3565 0.1
C3559 0.1
C3560 0.1
C3561 33/25V
R3659 33K
C3562 0.01
(BOOSTER CIRCUIT)
L3511 22V
L3512 22V
L3513 0
R3702 10
R3703 10
D3517 MA152WK
Q3567 XN4601
R3763 15K
C3599 220P
C3600 220P
R3701 56
R3705 10
R3706 10
Q3568 XN4601
R3764 15K
C3601 220P
C3602 220P
C3603 220P
R3704 56
R3707 56
R3708 10
R3709 10
Q3569 XN4601
D3519 MA152WK
C3604 220P
D3520 MA152WA
R3711 10
R3712 10
Q3570 XN4601
C3605 220P
C3606 220P
R3710 56
R3714 10
R3715 10
D3521 MA152WK
Q3571 XN4601
C3607 150P
C3608 150P
R3713 56
D3522 MA152WA
R3717 10
R3718 10
Q3572 XN4601
C3609 150P
C3610 150P
R3716 56
R3591 12K
Q3537 XN4601 (BUFFER)
R3593 10
R3594 10
Q3538 XN4601 (BUFFER)
R3592
R3595 12K
Q3539 XN4601 (BUFFER)
R3597 10
R3598 10
Q3540 XN4601 (BUFFER)
R3596 12K

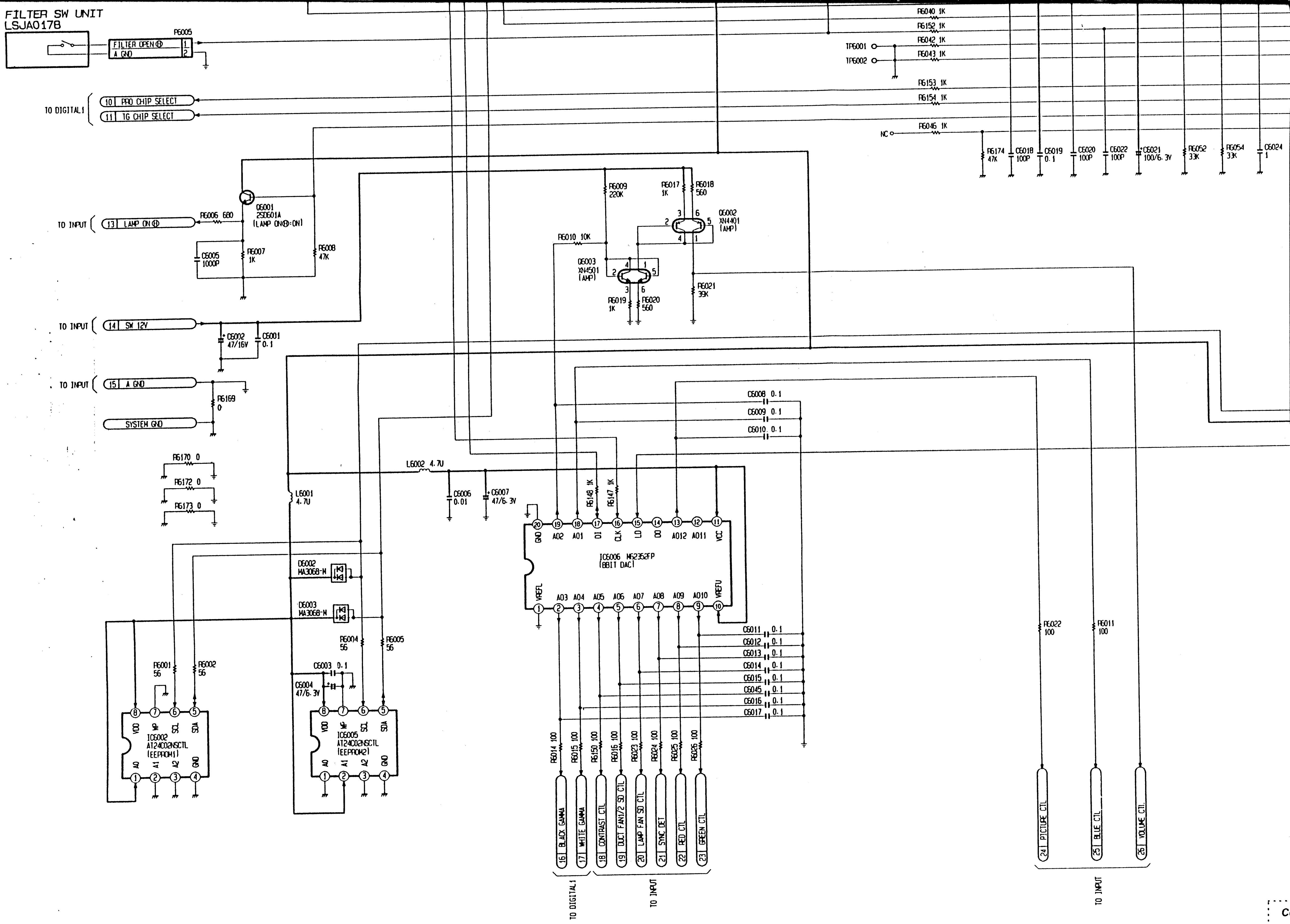

IC3505 CXA2504N-16
(BLUE SIGNAL SAMPLING & HOLD)
LEVEL-SHIFTER
S/H
DR
GND
VCC1
VCC2
VCC3
LD6
TP3509
TP3506
L3507 22U
R3668 47K
C3571 0.01
R3669 0
R3670 0
R3671 0
R3672 0
R3673 0
R3674 0
C3572 0.1
C3573 0.1
C3574 22/6.3V
C3567 0.1
C3568 0.1
C3569 33/25V
R3667 33K
C3570 0.01
C3562 0.01
R3666 0
C3565 0.1
C3716 22/6.3V
R3601 100
R3602 10KB
NTOL
R3603 100
C3538 0.1
R3606 100
R3607 10B
R3608 100
R3620 12K
Q3547 XN4601 (BUFFER)
R3622 10
R3623 10
Q3548 XN4601 (BUFFER)
R3621 12K
R3624 12K
Q3549 XN4601 (BUFFER)
R3626 10
R3627 10
Q3550 XN4601 (BUFFER)
R3625 12K
C3544 0.1
(BOOSTER CIRCUIT)
L3514 22U
R3722 10
R3723 10
D3523 MA152WK
Q3573 XN4601
R3765 15K
C3517 220P
C3518 220P
R3721 56
R3725 10
R3726 10
Q3574 XN4601
R3766 15K
C3619 220P
C3620 220P
R3724 56
R3728 10
R3729 10
D3525 MA152WK
Q3575 XN4601
C3621 220P
C3622 220P
R3727 56
D3526 MA152WA
R3731 10
R3732 10
Q3576 XN4601
C3623 220P
C3624 220P
R3730 56
BLUE LC COMMON
R3740 1K8
R3739 4700
L3515 22U
R3734 10
R3735 10
D3527 MA152WK
Q3577 XN4601
C3625 150P
C3626 150P
D3528 MA152WA
R3733 56
R3737 10
Q3578 XN4601
C3627 150P
C3628 150P
R3736 56
R3738 10
L3516 0
Q3571 XN4601
Q3572 XN4601
C3607 150P
C3608 150P
C3609 150P
C3610 150P
D3522 MA152WA
R3713 56
R3716 56
R3718 10
L3513 0
(BOOSTER CIRCUIT)
L3517 22U
R3742 10
Q3579 XN4601
R3743 10
D3529 MA152WK
C3635 150P
C3636 150P
R3741 56
D3530 MA152WA
R3767 15K
Q3580 XN4601
C3637 150P
R3745 10
C3638 150P
R3744 56
R3746 10
R3749 10
Q3581 XN4601
C3639 220P
R3748 5600
R3747 56
R3751 10
R3750 5600
D3531 MA111
C3641 0.1
C3640 220P
C3644 0.01
R3754 15K
R3757 15K
C3645 0.01
Q3582 XN4601
R3753 47K
R3752 22K
R3755 47K
R3756 22K
R3760 15K
C3646 0.01
R3758 22K
R3759 47K
Q3583 2SC601A
C3642 4.7/25V
C3643 0.1
L3518 0
C3537 200
C3544 0.1

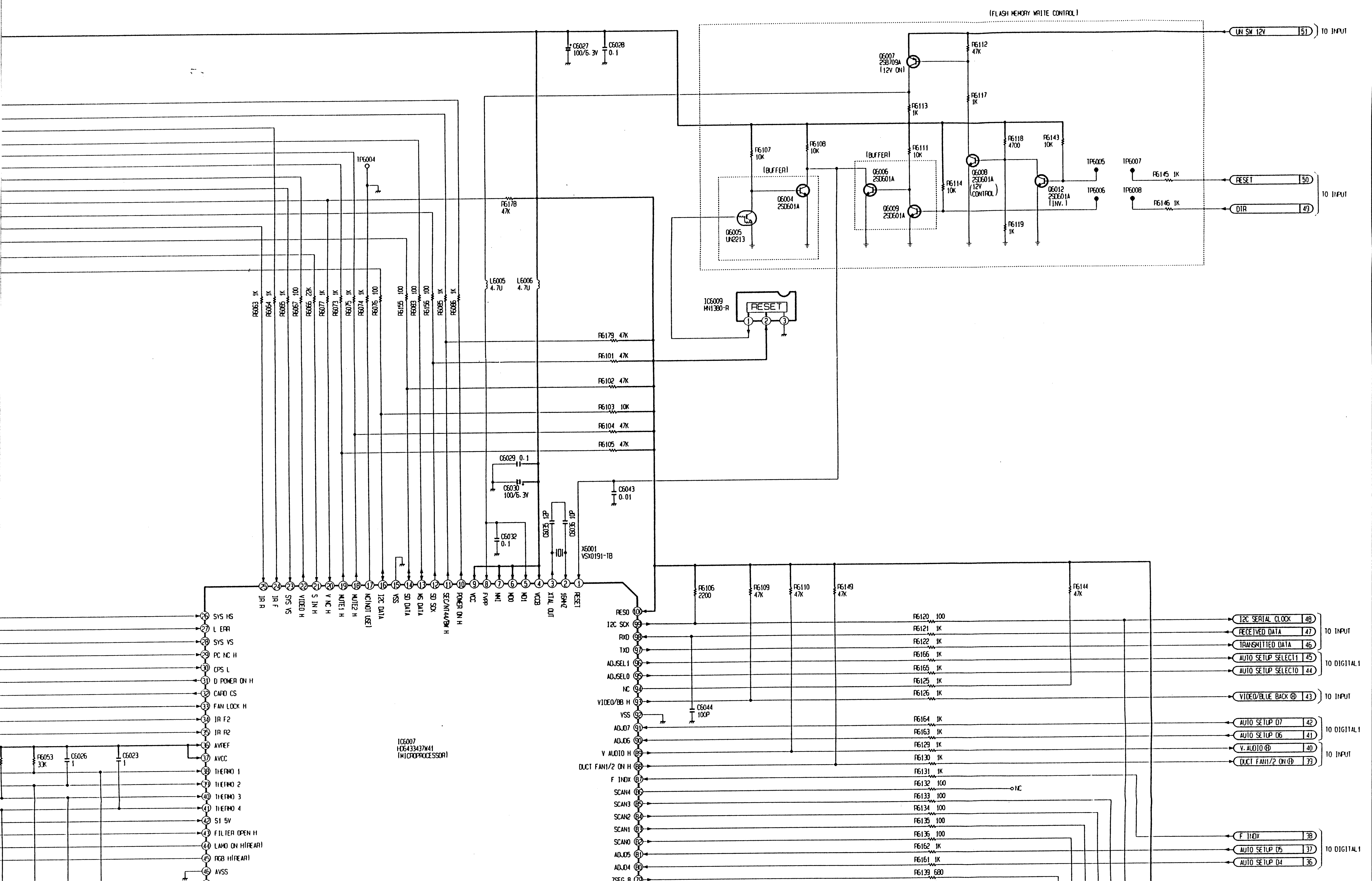

RGB(ANALOG) SIGNAL
LD4
LD5
LD7
LD8
LD9
TP3510
TP3511
TP3507
TP3508
(BOOSTER CIRCUIT)
(BOOSTER CIRCUIT)
L3508 22U
L3509 22U
L3510 0
L3511 22U
L3512 22U
L3513 0
R3662 47K
C3665 0.01
R3660 47K
C3663 0.01
R3653 0
R3654 0
R3655 0
R3656 0
R3657 0
R3658 0
R3661 0
R3662 0
R3663 0
R3664 0
R3665 0
R3666 0
C3676 0.1
C3664 0.1
C3657 0.1
C3658 22/6.3V
C3665 0.1
VCC2
VCC3
GND
DA
Q3561 XN4601
Q3562 XN4601
Q3563 XN4601
Q3564 XN4601
Q3565 XN4601
Q3566 XN4601
Q3567 XN4601
Q3568 XN4601
Q3569 XN4601
Q3570 XN4601
Q3571 XN4601
Q3572 XN4601
D3511 MA152WK
D3513 MA152WK
D3514 MA152WA
D3515 MA152WK
D3516 MA152WA
D3517 MA152WK
D3519 MA152WK
D3520 MA152WA
D3521 MA152WK
D3522 MA152WA
R3682 10
R3683 10
R3685 10
R3686 10
R3688 10
R3689 10
R3691 10
R3692 10
R3761 15K
R3762 15K
R3681 56
R3684 56
R3687 56
R3690 56
C3581 220P
C3582 220P
C3583 220P
C3584 220P
C3585 220P
C3586 220P
C3587 220P
C3588 220P
R3694 10
R3695 10
R3697 10
R3698 10
R3693 56
R3696 56
C3589 150P
C3590 150P
C3591 150P
C3592 150P
R3702 10
R3703 10
R3705 10
R3706 10
R3708 10
R3709 10
R3711 10
R3712 10
R3763 15K
R3764 15K
R3701 56
R3704 56
R3707 56
R3710 56
C3599 220P
C3600 220P
C3601 220P
C3602 220P
C3603 220P
C3604 220P
C3605 220P
C3606 220P
R3714 10
R3715 10
R3717 10
R3718 10
R3713 56
R3716 56
C3607 150P
C3608 150P
C3609 150P
C3610 150P
RED LCD COMMON
R3700 1K8
R3699 4700
C3593 1
C3595 0.1
C3596 4.7/25V
C3597 0.1
C3598 10/25V
GREEN LCD COMMON
R3720 1K8
R3719 4700
C3611 1
C3613 0.1
C3614 4.7/25V
C3615 0.1
C3616 10/25V
P3501
1 SHIFT DATA Y
2 VSS Y
3 VSS Y
4 NRS2
5 NRS1
6 LC COMMON
7 VSS X
8 RED SIGNAL 6
9 RED SIGNAL 5
10 RED SIGNAL 4
11 RED SIGNAL 3
12 RED SIGNAL 2
13 RED SIGNAL 1
14 VSS X
15
16
17 VDD X
18 SHIFT DATA X
19 X-SHIFT CLOCK X
20 SHIFT CLOCK X
21 DIR X
22 ENB 2(RED)
23 ENB 1(RED)
24 LC COM
25 DIR Y
26 NRG
27 VDD Y
28 X-SHIFT CLOCK Y
29 SHIFT CLOCK Y
30 SHIFT DATA Y
TO LCD RED UNIT
P3502
1 SHIFT DATA Y
2 VSS Y
3 VSS Y
4 NRS2
5 NRS1
6 LC COMMON
7 VSS X
8 GREEN SIGNAL 6
9 GREEN SIGNAL 5
10 GREEN SIGNAL 4
11 GREEN SIGNAL 3
12 GREEN SIGNAL 2
13 GREEN SIGNAL 1
14 VSS X
15
16
17 VDD X
18 SHIFT DATA X
19 X-SHIFT CLOCK X
20 SHIFT CLOCK X
21 DIR X
22 ENB 2(GREEN)
23 ENB 1(GREEN)
24 LC COM
25 DIR Y
26 NRG
27 VDD Y
28 X-SHIFT CLOCK Y
29 SHIFT CLOCK Y
30 SHIFT DATA Y
TO LCD GREEN UNIT

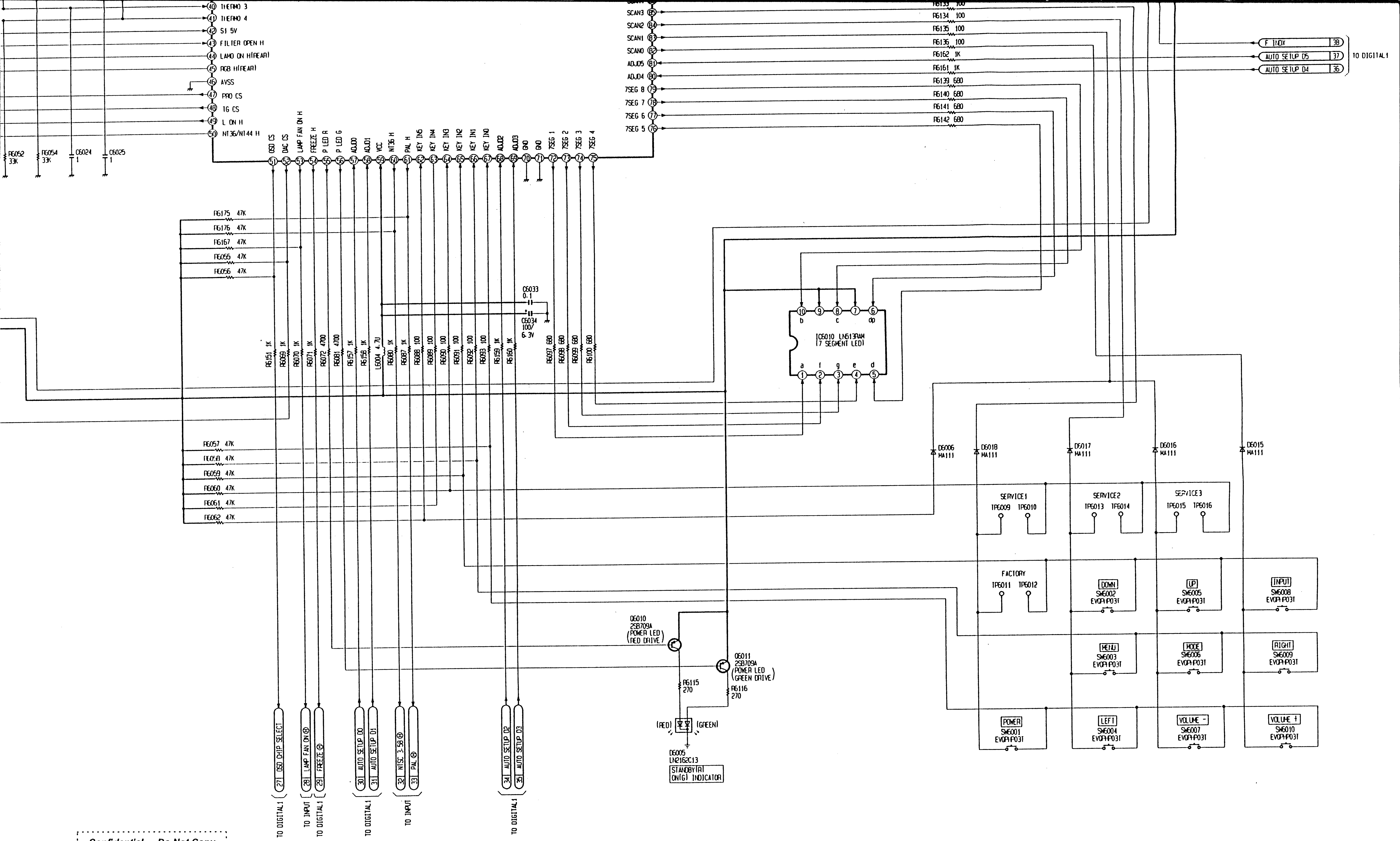

LD6
TP3509
TP3512
TP3513
P3503
1 SHIFT DATA Y
2 VSS Y
3 VSS Y
4 NRS2
5 NRS1
6 LC COMMON
7 VSS X
8 BLUE SIGNAL 6
9 BLUE SIGNAL 5
10 BLUE SIGNAL 4
11 BLUE SIGNAL 3
12 BLUE SIGNAL 2
13 BLUE SIGNAL 1
14 VSS X
15
16
17 VDD X
18 SHIFT DATA X
19 X-SHIFT CLOCK X
20 SHIFT CLOCK X
21 DIR X
22 ENB 2(BLUE)
23 ENB 1(BLUE)
24 LC COM
25 DIR Y
26 NRG
27 VDD Y
28 X-SHIFT CLOCK Y
29 SHIFT CLOCK Y
30 SHIFT DATA Y
TO
LCD BLUE UNIT
(BOOSTER CIRCUIT)
L3514 22V
L3515 22V
L3517 22V
L3513 0
L3516 0
L3518 0
Q3573 XN4601
Q3574 XN4601
Q3575 XN4601
Q3576 XN4601
Q3577 XN4601
Q3578 XN4601
Q3579 XN4601
Q3580 XN4601
Q3581 XN4601
Q3582 XN4601
Q3583 2SD601A
D3522 MA152WA
D3523 MA152WK
D3525 MA152WK
D3526 MA152WA
D3527 MA152WK
D3528 MA152WA
D3529 MA152WK
D3530 MA152WA
D3531 MA111
BLUE LCD COMMON
R3740 1K8
R3739 4700
C3629 1
C3631 0.1
C3632 4.7/25V
C3633 0.1
C3634 10/25V
R3668 47K
C3571 0.01
C3572 0.1
C3573 0.1
C3574 22/6.3V
C3565 0.1
R3669 0
R3670 0
R3671 0
R3672 0
R3673 0
R3674 0
VCC2
VCC3
GND

SYSTEM CONTROL SCHEMATIC DIAGRAM


IR SENSOR
FRONT C.B.A.
(LSEP0052A1)
P6801
P6001
1 UN SW 5V(D) 1
2 A GND 2
3 IR FRONT 3
TO INPUT
52 SYSTEM 5V
53 POWER ON Ⓗ
54 SEC/NT4.4/BW Ⓗ
TO DIGITAL1
55 SERIAL CLOCK
56 MICON SERIAL DATA
57 SERIAL DATA
TO INPUT
58 I2C SERIAL DATA
59 MUTE2 Ⓗ
60 MUTE1 Ⓗ
61 NO VIDEO SIGNAL Ⓗ
62 S-VIDEO IN Ⓗ
63 SYSTEM VIDEO Ⓗ
R6177
47K
TO DIGITAL1
64 IR REAR
1 SYSTEM H-SYNC
TO INPUT
2 LAMP ERROR
TO DIGITAL2
3 SYSTEM V-SYNC
TO INPUT
4 NO PC RGB SIGNAL Ⓗ
5 COMPOSIT SYNC Ⓛ
TO DIGITAL1
6 D POWER ON Ⓗ
7 CARD CHIP SELECT
TO INPUT
8 FAN LOCK Ⓗ
9 S-VIDEO 5V Ⓗ
THERMISTOR 2
C.B.A.
(LSEP0067A1)
P6402
P6003
THERMO1
THERMO2
THERMISTOR
VRTS0014
P6004
THERMO3
THERMO4
FILTER SW UNIT
LSJA0178
P6005
FILTER OPEN Ⓗ
A GND
R6168
47K
R6027
47K
R6028
47K
R6029
47K
R6030 1K
R6031 1K
R6032 1K
R6033 1K
R6034 1K
R6171 1K
R6036 1K
R6037 22K
R6038 1K
R6039 1K
L6003 4.7U
R6047
33K
R6053
33K
C6026
1
R6040 1K
R6152 1K
R6042 1K
R6043 1K
TP6001
TP6002
R6153 1K


FILTER SW UNIT
LSJA0178
P6005
FILTER OPEN ①
A GND
TO DIGITAL1
10 PRO CHIP SELECT
11 TG CHIP SELECT
TO INPUT
13 LAMP ON ①
R6006 680
Q6001
2SD601A
(LAMP ON①:ON)
C6005
1000P
R6007
1K
R6008
47K
14 SW 12V
C6002
47/16V
C6001
0.1
15 A GND
R6169
0
SYSTEM GND
R6170 0
R6172 0
R6173 0
L6001
4.7U
L6002 4.7U
C6006
0.01
C6007
47/6.3V
D6002
MA3068-M
D6003
MA3068-M
R6001
56
R6002
56
R6004
56
R6005
56
C6003 0.1
C6004
47/6.3V
VDD
WP
SCL
SDA
A0
A1
A2
GND
IC6002
AT24C02NSCTL
(EEPROM1)
IC6005
AT24C02NSCTL
(EEPROM2)
R6009
220K
R6017
1K
R6018
560
Q6002
XN4401
(AMP)
R6010 10K
Q6003
XN4501
(AMP)
R6019
1K
R6020
560
R6021
39K
R6148 1K
R6147 1K
GND
AO2
AO1
DI
CLK
LD
DO
AO12
AO11
VCC
IC6006 M62352FP
(8BIT DAC)
VREFL
AO3
AO4
AO5
AO6
AO7
AO8
AO9
AO10
VREFU
C6008 0.1
C6009 0.1
C6010 0.1
C6011 0.1
C6012 0.1
C6013 0.1
C6014 0.1
C6015 0.1
C6045 0.1
C6016 0.1
C6017 0.1
R6014 100
R6015 100
R6150 100
R6016 100
R6023 100
R6024 100
R6025 100
R6026 100
16 BLACK GAMMA
17 WHITE GAMMA
18 CONTRAST CTL
19 DUCT FAN1/2 SD CTL
20 LAMP FAN SD CTL
21 SYNC DET
22 RED CTL
23 GREEN CTL
TO DIGITAL1
TO INPUT
R6040 1K
R6152 1K
R6042 1K
R6043 1K
TP6001
TP6002
R6153 1K
R6154 1K
R6046 1K
NC
R6174
47K
C6018
100P
C6019
0.1
C6020
100P
C6022
100P
C6021
100/6.3V
R6052
33K
R6054
33K
C6024
1
R6022
100
R6011
100
24 PICTURE CTL
25 BLUE CTL
26 VOLUME CTL
TO INPUT


(FLASH MEMORY WRITE CONTROL)
UN SW 12V
51
TO INPUT
C6027 100/6.3V
C6028 0.1
Q6007 2SB709A (12V ON)
R6112 47K
R6117 1K
R6113 1K
R6107 10K
R6108 10K
(BUFFER)
Q6004 2SD601A
Q6005 UN2213
(BUFFER)
Q6006 2SD601A
R6111 10K
Q6009 2SD601A
R6114 10K
Q6008 2SD601A (12V CONTROL)
R6118 4700
R6119 1K
R6143 10K
Q6012 2SD601A (INV.)
TP6005
TP6006
TP6007
TP6008
R6145 1K
R6146 1K
RESET
50
DIR
49
TO INPUT
TP6004
R6178 47K
IC6009 MN1380-R
RESET
1
2
3
L6005 4.7U
L6006 4.7U
R6063 1K
R6064 1K
R6065 1K
R6067 100
R6066 22K
R6077 1K
R6073 1K
R6075 1K
R6074 1K
R6076 100
R6155 100
R6083 100
R6156 100
R6085 1K
R6086 1K
R6179 47K
R6101 47K
R6102 47K
R6103 10K
R6104 47K
R6105 47K
C6029 0.1
C6030 100/6.3V
C6043 0.01
C6032 0.1
C6035 12P
C6036 10P
X6001 VSX0191-TB
1 RESET
2 16MHZ
3 XTAL OUT
4 VCCB
5 MD1
6 MD0
7 NMI
8 FVPP
9 VCC
10 POWER ON H
11 SEC/NT44/BW H
12 SD SCK
13 KS DATA
14 SD DATA
15 VSS
16 I2C DATA
17 NC(NOT USE)
18 MUTE2 H
19 MUTE1 H
20 V NC H
21 S IN H
22 VIDEO H
23 SYS VS
24 IR F
25 IR R
26 SYS HS
27 L ERR
28 SYS VS
29 PC NC H
30 CPS L
31 D POWER ON H
32 CARD CS
33 FAN LOCK H
34 IR F2
35 IR R2
36 AVREF
37 AVCC
38 THERMO 1
39 THERMO 2
40 THERMO 3
41 THERMO 4
42 S1 5V
43 FILTER OPEN H
44 LAMD ON H(REAR)
45 RGB H(REAR)
46 AVSS
R6053 33K
C6026 1
C6023 1
IC6007 HD6433437W41 (MICROPROCESSOR)
RESO 100
I2C SCK 99
RXD 98
TXD 97
ADJSEL1 96
ADJSEL0 95
NC 94
VIDEO/BB H 93
VSS 92
ADJ07 91
ADJ06 90
V AUDIO H 89
DUCT FAN1/2 ON H 88
F INDX 87
SCAN4 86
SCAN3 85
SCAN2 84
SCAN1 83
SCAN0 82
ADJ05 81
ADJ04 80
7SEG B 79
R6106 2200
R6109 47K
R6110 47K
R6149 47K
R6144 47K
C6044 100P
R6120 100
R6121 1K
R6122 1K
R6166 1K
R6165 1K
R6125 1K
R6126 1K
R6164 1K
R6163 1K
R6129 1K
R6130 1K
R6131 1K
R6132 100
NC
R6133 100
R6134 100
R6135 100
R6136 100
R6162 1K
R6161 1K
R6139 680
I2C SERIAL CLOCK 48
RECEIVED DATA 47
TRANSMITTED DATA 46
TO INPUT
AUTO SETUP SELECT1 45
AUTO SETUP SELECT0 44
TO DIGITAL1
VIDEO/BLUE BACK Ⓗ 43
TO INPUT
AUTO SETUP D7 42
AUTO SETUP D6 41
TO DIGITAL1
V.AUDIO Ⓗ 40
DUCT FAN1/2 ON Ⓗ 39
TO INPUT
F INDX 38
AUTO SETUP D5 37
AUTO SETUP D4 36
TO DIGITAL1



THERMO 3
THERMO 4
S1 5V
FILTER OPEN H
LAMP ON H(REAR)
RGB H(REAR)
AVSS
PRO CS
TG CS
L ON H
NT36/NT44 H
R6052 33K
R6054 33K
C6024 1
C6025 1
OSD CS
DAC CS
LAMP FAN ON H
FREEZE H
P LED R
P LED G
ADJ00
ADJ01
VCC
NT36 H
PAL H
KEY IN5
KEY IN4
KEY IN3
KEY IN2
KEY IN1
KEY IN0
ADJ02
ADJ03
GND
GND
7SEG 1
7SEG 2
7SEG 3
7SEG 4
SCAN3
SCAN2
SCAN1
SCAN0
ADJ05
ADJ04
7SEG 8
7SEG 7
7SEG 6
7SEG 5
R6134 100
R6135 100
R6136 100
R6162 1K
R6161 1K
R6139 680
R6140 680
R6141 680
R6142 680
F INDX
AUTO SETUP D5
AUTO SETUP D4
38
37
36
TO DIGITAL1
R6175 47K
R6176 47K
R6167 47K
R6055 47K
R6056 47K
C6033 0.1
C6034 100/ 6.3V
R6151 1K
R6069 1K
R6070 1K
R6071 1K
R6072 4700
R6081 4700
R6157 1K
R6158 1K
L6004 4.7U
R6080 1K
R6087 1K
R6088 100
R6089 100
R6090 100
R6091 100
R6092 100
R6093 100
R6159 1K
R6160 1K
R6097 680
R6098 680
R6099 680
R6100 680
IC6010 LN513RAM (7 SEGMENT LED)
b c dp
a f g e d
R6057 47K
R6058 47K
R6059 47K
R6060 47K
R6061 47K
R6062 47K
D6006 MA111
D6018 MA111
D6017 MA111
D6016 MA111
D6015 MA111
SERVICE1 TP6009 TP6010
SERVICE2 TP6013 TP6014
SERVICE3 TP6015 TP6016
FACTORY TP6011 TP6012
DOWN SW6002 EVQPHP03T
UP SW6005 EVQPHP03T
INPUT SW6008 EVQPHP03T
MENU SW6003 EVQPHP03T
MODE SW6006 EVQPHP03T
RIGHT SW6009 EVQPHP03T
POWER SW6001 EVQPHP03T
LEFT SW6004 EVQPHP03T
VOLUME - SW6007 EVQPHP03T
VOLUME + SW6010 EVQPHP03T
Q6010 2SB709A (POWER LED RED DRIVE)
Q6011 2SB709A (POWER LED GREEN DRIVE)
R6115 270
R6116 270
(RED)
(GREEN)
D6005 LN2162C13
STANDBY(R) ON(G) INDICATOR
27 OSD CHIP SELECT
28 LAMP FAN ON ⊕
29 FREEZE ⊕
30 AUTO SETUP D0
31 AUTO SETUP D1
32 NTSC 3.58 ⊕
33 PAL ⊕
34 AUTO SETUP D2
35 AUTO SETUP D3
TO DIGITAL1
TO INPUT
TO DIGITAL1
TO DIGITAL1
TO INPUT
TO DIGITAL1

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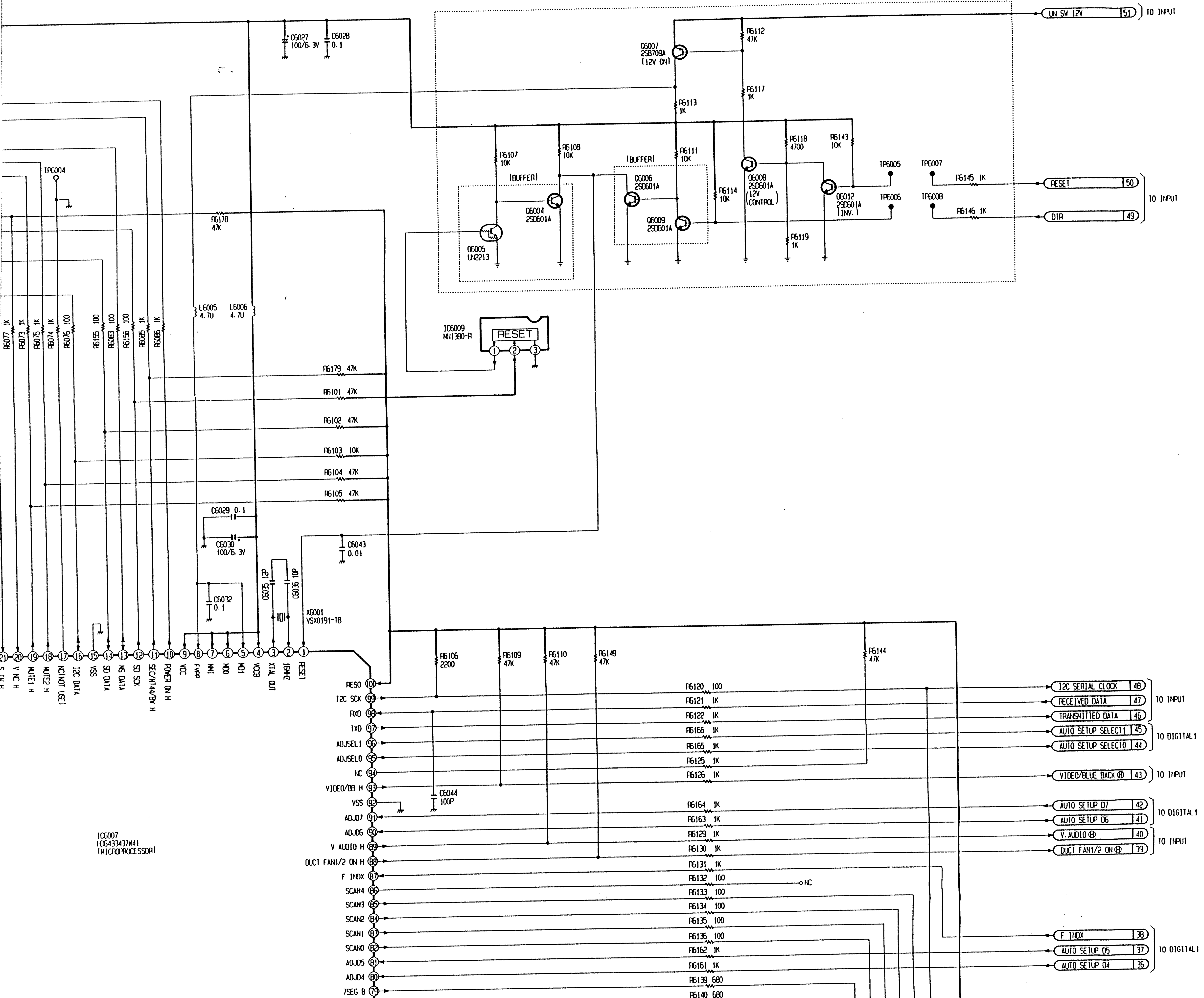
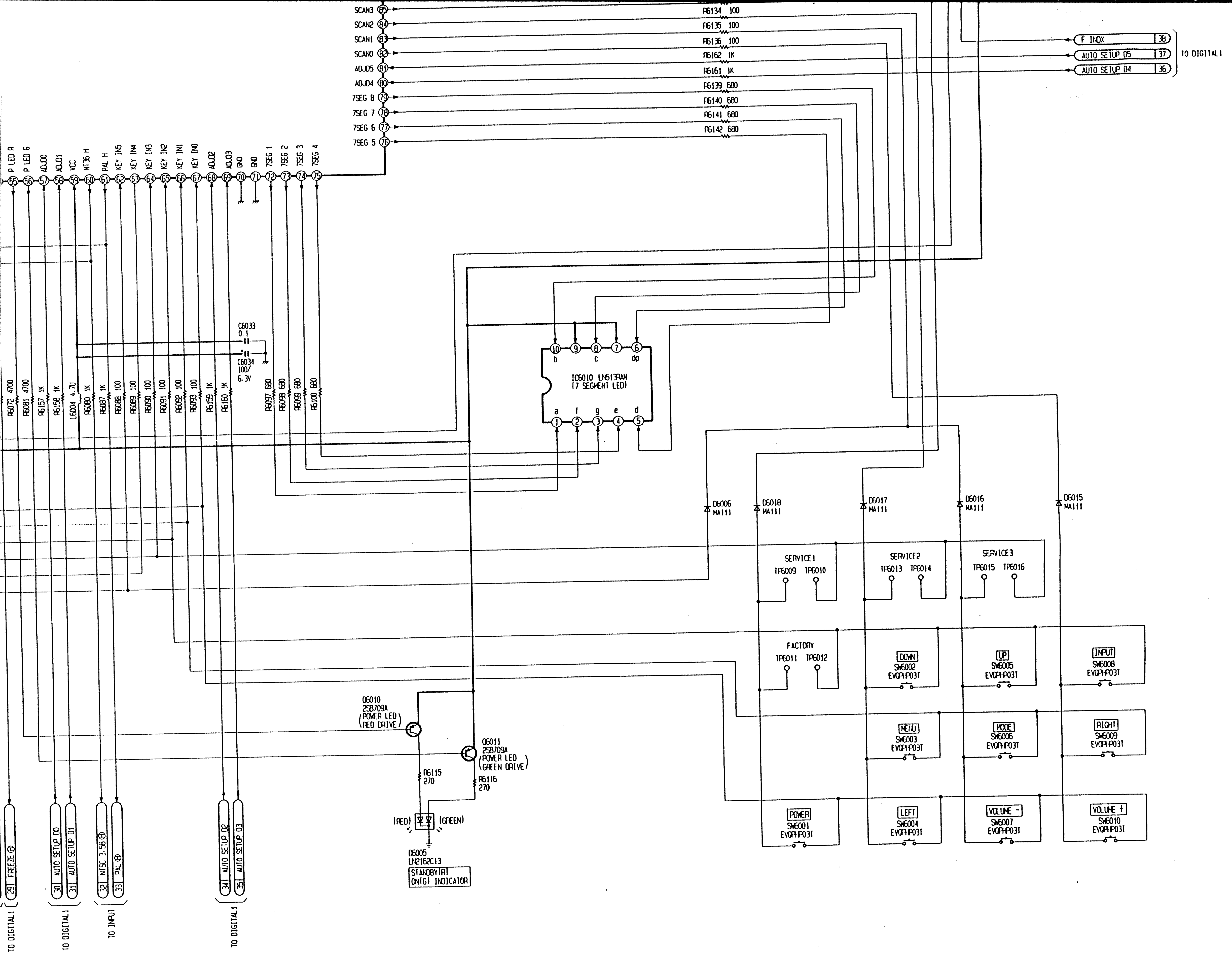

(FLASH MEMORY WRITE CONTROL)
UN SW 12V
51
TO INPUT
C6027
100/6.3V
C6028
0.1
Q6007
2SB709A
(12V ON)
R6112
47K
R6117
1K
R6113
1K
R6107
10K
R6108
10K
(BUFFER)
(BUFFER)
Q6004
2SD601A
Q6005
UN2213
Q6006
2SD601A
Q6009
2SD601A
R6111
10K
R6114
10K
Q6008
2SD601A
(12V CONTROL)
R6118
4700
R6119
1K
R6143
10K
Q6012
2SD601A
(INV.)
TP6005
TP6006
TP6007
TP6008
R6145 1K
R6146 1K
RESET
50
DIR
49
TO INPUT
TP6004
R6178
47K
IC6009
MN1380-R
RESET
L6005
4.7U
L6006
4.7U
R6077 1K
R6073 1K
R6075 1K
R6074 1K
R6076 100
R6155 100
R6083 100
R6156 100
R6085 1K
R6086 1K
R6179 47K
R6101 47K
R6102 47K
R6103 10K
R6104 47K
R6105 47K
C6029 0.1
C6030
100/6.3V
C6043
0.01
C6035 12P
C6036 10P
C6032
0.1
X6001
VSX0191-TB
S IN H
V NC H
MUTE1 H
MUTE2 H
NC(NOT USE)
I2C DATA
VSS
SD DATA
MS DATA
SD SCK
SEC/NT44/BW H
POWER ON H
VCC
FVPP
NMI
MD0
MD1
VCCB
XTAL OUT
16MHZ
RESET
IC6007
IC6433437W41
(MICROPROCESSOR)
RESO
I2C SCK
RXD
TXD
ADJSEL1
ADJSEL0
NC
VIDEO/BB H
VSS
ADJ07
ADJ06
V AUDIO H
DUCT FAN1/2 ON H
F INDX
SCAN4
SCAN3
SCAN2
SCAN1
SCAN0
ADJ05
ADJ04
7SEG 8
R6106
2200
R6109
47K
R6110
47K
R6149
47K
R6144
47K
C6044
100P
R6120 100
R6121 1K
R6122 1K
R6166 1K
R6165 1K
R6125 1K
R6126 1K
R6164 1K
R6163 1K
R6129 1K
R6130 1K
R6131 1K
R6132 100
NC
R6133 100
R6134 100
R6135 100
R6136 100
R6162 1K
R6161 1K
R6139 680
R6140 680
I2C SERIAL CLOCK 48
RECEIVED DATA 47
TRANSMITTED DATA 46
TO INPUT
AUTO SETUP SELECT1 45
AUTO SETUP SELECT0 44
TO DIGITAL1
VIDEO/BLUE BACK Ⓗ 43
TO INPUT
AUTO SETUP D7 42
AUTO SETUP D6 41
TO DIGITAL1
V.AUDIO Ⓗ 40
DUCT FAN1/2 ON Ⓗ 39
TO INPUT
F INDX 38
AUTO SETUP D5 37
AUTO SETUP D4 36
TO DIGITAL1


SCAN3 85
SCAN2 84
SCAN1 83
SCAN0 82
ADJ05 81
ADJ04 80
7SEG 8 79
7SEG 7 78
7SEG 6 77
7SEG 5 76
R6134 100
R6135 100
R6136 100
R6162 1K
R6161 1K
R6139 680
R6140 680
R6141 680
R6142 680
F INDX 38
AUTO SETUP D5 37
AUTO SETUP D4 36
TO DIGITAL1
P LED R
P LED G
ADJ00
ADJ01
VCC
NT36 H
PAL H
KEY IN5
KEY IN4
KEY IN3
KEY IN2
KEY IN1
KEY IN0
ADJ02
ADJ03
GND
GND
7SEG 1
7SEG 2
7SEG 3
7SEG 4
C6033 0.1
C6034 100/ 6.3V
R6072 4700
R6081 4700
R6157 1K
R6158 1K
L6004 4.7U
R6080 1K
R6087 1K
R6088 100
R6089 100
R6090 100
R6091 100
R6092 100
R6093 100
R6159 1K
R6160 1K
R6097 680
R6098 680
R6099 680
R6100 680
IC6010 LN513RAM (7 SEGMENT LED)
b c dp
a f g e d
D6006 MA111
D6018 MA111
D6017 MA111
D6016 MA111
D6015 MA111
SERVICE1 TP6009 TP6010
SERVICE2 TP6013 TP6014
SERVICE3 TP6015 TP6016
FACTORY TP6011 TP6012
DOWN SW6002 EVQPHP03T
UP SW6005 EVQPHP03T
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POWER SW6001 EVQPHP03T
LEFT SW6004 EVQPHP03T
VOLUME - SW6007 EVQPHP03T
VOLUME + SW6010 EVQPHP03T
Q6010 2SB709A (POWER LED RED DRIVE)
Q6011 2SB709A (POWER LED GREEN DRIVE)
R6115 270
R6116 270
(RED) (GREEN)
D6005 LN2162C13
STANDBY(R) ON(G) INDICATOR
29 FREEZE
30 AUTO SETUP D0
31 AUTO SETUP D1
32 NTSC 3.58
33 PAL
34 AUTO SETUP D2
35 AUTO SETUP D3
TO DIGITAL1
TO DIGITAL1
TO INPUT
TO DIGITAL1

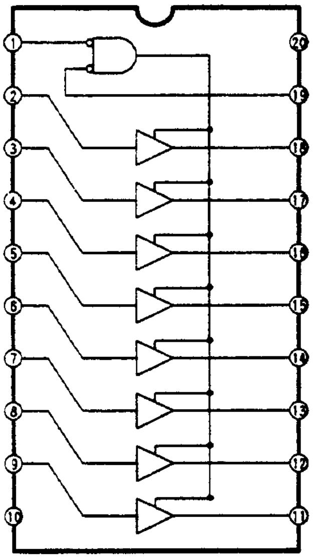
I/O CHART FOR SYSTEM MICROPROCESSOR
IC6007 (HD64F3437F16)

PIN NO.	PORT NAME	I/O	FUNCTION	PIN NO.	PORT NAME	I/O	FUNCTION
1	RESET	I	IC6007 RESET: LOW	49	L ON H	O	Lamp ON: HIGH
2	16MHZ	I	Reference Clock for IC6007	50	NT36/NT44 H	O	NTSC 3.58/NTSC 4.43: HIGH
3	XTAL OUT	O	Oscillation (16MHz)	51	OSD CS	O	OSD Chip Select: LOW
4	VCC B	I	+5V	52	DAC CS	O	D/A Converter Chip Select: LOW
5	MD1	I	See Fig. 1	53	LAMP FAN ON H	O	LAMP FAN ON: HIGH
6	MD0	I	+5V	54	FREEZE H	O	Freeze ON: HIGH
7	NMI	I	+5V	55	P LED R	O	Power LED-R ON: LOW
8	FVPP	I	See Fig. 1	56	P LED G	O	Power LED-G ON: LOW
9	VCC	I	+5V	57	ADJD0	I	Auto Setup Data 0 Signal Input
10	POWER ON H	O	Power ON: HIGH	58	ADJD1	I	Auto Setup Data 1 Signal Input
11	SEC/NT44/BW H	O	SECAM/NTSC 4.43/BW: HIGH	59	VCC	I	+5V
12	SD SCK	O	Serial Clock Output	60	NT36 H	O	NTSC 3.58: HIGH
13	MS DATA	I/O	Serial Data Input/Output	61	PAL H	O	PAL B/SECAM/NTSC 4.43: HIGH
14	SD DATA	I/O	Serial Data Input/Output	62	KEY IN5	I	Key Data 5 Input
15	VSS	—	Grounding Terminal	63	KEY IN4	I	Key Data 4 Input
16	I2C DATA	I/O	I^{2}C Serial Data Input/Output	64	KEY IN3	I	Key Data 3 Input
17	NC	—	(Not used)	65	KEY IN2	I	Key Data 2 Input
18	MUTE2 H	O	Volume=0: HIGH	66	KEY IN1	I	Key Data 1 Input
19	MUTE1 H	O	Mute: HIGH	67	KEY IN0	I	Key Data 0 Input
20	V NC H	I	No Video Signal Input: HIGH	68	ADJD2	I	Auto Setup Data 2 Signal Input
21	S IN H	I	S-VIDEO Signal Input: HIGH	69	ADJD3	I	Auto Setup Data 3 Signal Input
22	VIDEO H	O	Video/S-Video Mode: HIGH	70	GND	—	Grounding Terminal
23	SYS VS	I	V-Sync Signal Interrupt Input	71	GND	—	Grounding Terminal
24	IR F	I	Front IR Remote Control Data Interrupt Input	72	7 SEG 1	O	7 Segment LED-a ON: LOW
				73	7 SEG 2	O	7 Segment LED-f ON: LOW
25	IR R	I	Rear IR Remote Control Data Interrupt Input	74	7 SEG 3	O	7 Segment LED-g ON: LOW
				75	7 SEG 4	O	7 Segment LED-e ON: LOW
26	SYS HS	I	H-Sync Signal Input	76	7 SEG 5	O	7 Segment LED-d ON: LOW
27	L ERR	I	Lamp Error Input	77	7 SEG 6	O	7 Segment LED-dp ON: LOW
28	SYS VS	I	V-Sync Signal Input	78	7 SEG 7	O	7 Segment LED-c ON: LOW
29	PC NC H	I	No PC RGB Signal Input: HIGH	79	7 SEG 8	O	7 Segment LED-b ON: LOW
30	CPS L	I	Composite Sync: LOW Separate Sync: HIGH	80	ADJD4	I	Auto Setup Data 4 Signal Input
				81	ADJD5	I	Auto Setup Data 5 Signal Input
31	D POWER ON H	O	Digital 5V Reset	82	SCAN0	O	Scan Pulse 0 Output
32	CARD CS	O	CARD Chip Select: LOW	83	SCAN1	O	Scan Pulse 1 Output
33	FAN LOCK H	I	FAN 1/FAN 2/FAN 3 Lock: HIGH	84	SCAN2	O	Scan Pulse 2 Output
34	IR F2	I	Front IR Remote Control Data 2 Interrupt Input	85	SCAN3	O	Scan Pulse 3 Output
				86	SCAN4	O	Scan Pulse 4 Output
35	IR R2	I	Rear IR Remote Control Data 2 Interrupt Input	87	FLDI	I	Field Even/Odd Input
				88	DUCT FAN-1 ON H	O	DUCT FAN-1/2 ON: HIGH
36	AVREF	I	+5V	89	V AUDIO H	O	Video Input Mode: HIGH
37	AVCC	I	+5V	90	ADJD6	I	Auto Setup Data 6 Signal Input
38	THERMO1	I	Thermo 1 Temp Data Input	91	ADJD7	I	Auto Setup Data 7 Signal Input
39	THERMO2	I	Thermo 2 Temp Data Input	92	VSS	—	Grounding Terminal
40	THERMO3	I	Thermo 3 Temp Data Input	93	VIDEO/BB H	O	Video/Blueback: HIGH
41	THERMO4	I	Thermo 4 Temp Data Input	94	NC	—	(Not used)
42	S1 5V	I	S1 Signal Input	95	ADJ SEL0	O	Auto Setup Select 0 Signal Output
43	FILTER OPEN H	I	Filter Open: HIGH	96	ADJ SEL1	O	Auto Setup Select 1 Signal Output
44	LAMO ON H	—	(Not used)	97	TXD	O	Transmitted Data (RS232C)
45	RGB H	—	(Not used)	98	RXD	I	Received Data (RS232C)
46	AVSS	—	Grounding Terminal	99	I2C SCK	O	I^{2}C Serial Clock Output
47	PRO CS	O	Process Chip Select: LOW	100	RESO	I	+5V
48	TG CS	O	Timing Generator Chip Select: LOW				

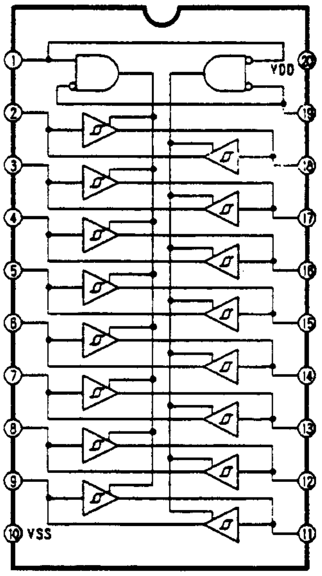
VOLTAGE CHART OF SYSTEM CONTROL SCHEMATIC DIAGRAM

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
IC6002		5	1.5	7	5.1	30	4.9	53	5.1	76	5.1	99	5.1	**Q6001**		**Q6005**		**Q6010**		**P6001**		**TP6001**	0
1	5.1	6	3.0	8	5.1	31	5.1	54	0	77	5.1	100	5.1	E	4.4	E	0	E	5.1	1	5.1	**TP6002**	0
2	0	7	2.8	9	5.1	32	4.7	55	5.1	78	5.1	**IC6009**		C	5.1	C	0	C	0.3	2	0	**TP6004**	0
3	0	8	[illegible]	10	5.0	33	0	56	0	79	5.1	1	5.1	B	5.1	B	5.1	B	5.1	3	0.3	**TP6005**	0.7
4	0	9	2.6	11	0	34	0	57	0	80	0	2	5.1	**Q6002**		**Q6006**		**Q6011**		**P6003**		**TP6006**	0.7
5	5.1	10	5.1	12	0	35	0.1	58	0	81	0	3	0	1	4.1	E	0	E	5.1	1	1.5	**TP6007**	5.1
6	5.1	11	5.1	13	0	36	5.1	59	5.1	82	5.1	**IC6010**		2	10.9	C	5.1	C	5.1	2	0	**TP6008**	5.1
7	0	12	0	14	2.4	37	5.1	60	5.1	83	5.1	1	5.1	3	11.5	B	0	B	4.4	3	3.6	**TP6009**	0.1
8	5.1	13	2.3	15	0	38	3.6	61	0	84	5.1	2	5.1	4	10.9	**Q6007**		**Q6012**		**P6004**		**TP6010**	5.1
IC6005		14	1.1	16	0	39	1.5	62	5.1	85	5.1	3	5.1	5	10.9	E	11.9	E	0	1	3.6	**TP6011**	0.1
1	0	15	0	17	2.2	40	3.7	63	5.1	86	5.1	4	5.1	6	11.5	C	5.1	C	0	2	1.5	**TP6012**	5.1
2	5.1	16	4.4	18	0	41	1.5	64	5.1	87	0	5	5.1	**Q6003**		B	11.8	B	0.7	**P6005**		**TP6013**	0.1
3	0	17	2.4	19	0	42	0	65	5.1	88	5.1	6	5.1	1	10.9	**Q6008**				1	0	**TP6014**	5.1
4	0	18	2.7	20	0	43	0	66	5.1	89	5.1	7	5.1	2	0.7	E	0			2	0	**TP6015**	0.1
5	5.1	19	2.0	21	0	44	0	67	5.1	90	0	8	5.1	3	0.2	C	11.8					**TP6016**	5.1
6	5.1	20	0	22	0	45	0	68	0	91	0	9	5.1	4	0.7	B	0						
7	0	**IC6007**		23	5.0	46	0	69	0	92	0	10	5.1	5	0.7	**Q6009**							
8	5.1	1	5.1	24	0.1	47	4.5	70	0	93	5.1			6	0.2	E	0						
IC6006		2	—	25	0.1	48	1.2	71	0	94	5.1			**Q6004**		C	0						
1	0	3	—	26	4.4	49	5.1	72	5.1	95	5.1			E	0	B	0.7						
2	2.4	4	5.1	27	5.1	50	5.1	73	5.1	96	5.1			C	5.1								
3	3.5	5	5.1	28	5.0	51	4.5	74	5.1	97	5.1			B	0								
4	1.4	6	5.1	29	5.0	52	0	75	5.1	98	5.1												

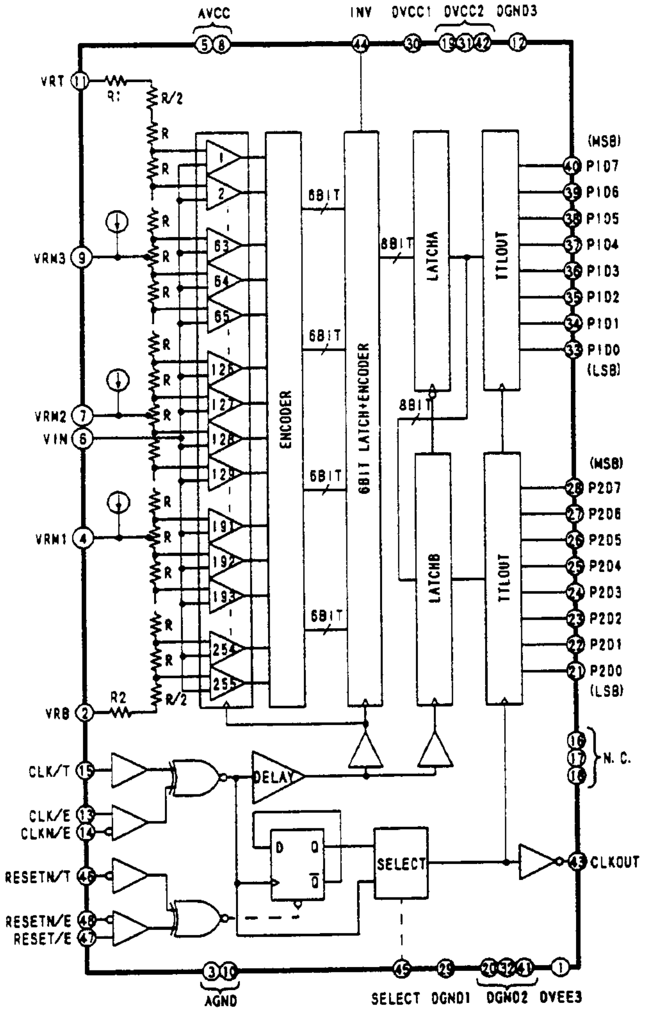
IC2001, IC2002, IC2003
(TC74LCX541F)



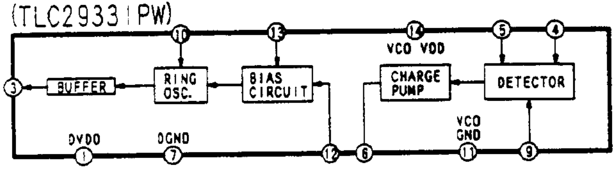
IC2016
(TC74HCT245AF)



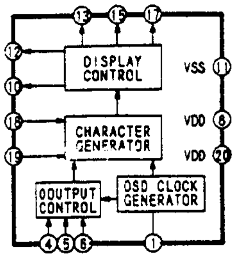
IC2006
(CXA3026Q)


AVCC
INV
DVCC1
DVCC2
DGND3
VRT
R1
R/2
R
VRM3
VRM2
VIN
VRM1
VRB
R2
R/2
1
2
63
64
65
126
127
128
129
191
192
193
254
255
ENCODER
6BIT
6BIT LATCH+ENCODER
8BIT
LATCHA
LATCHB
TTLOUT
(MSB)
P1D7
P1D6
P1D5
P1D4
P1D3
P1D2
P1D1
P1D0
(LSB)
(MSB)
P2D7
P2D6
P2D5
P2D4
P2D3
P2D2
P2D1
P2D0
(LSB)
N. C.
CLK/T
CLK/E
CLKN/E
RESETN/T
RESETN/E
RESET/E
DELAY
D
Q
SELECT
CLKOUT
AGND
SELECT
DGND1
DGND2
DVEE3

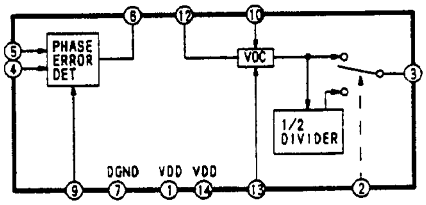
IC2010
(TLC2933IPW)


BUFFER
RING OSC.
BIAS CIRCUIT
VCO VDD
CHARGE PUMP
DETECTOR
DVDD
DGND
VCO GND

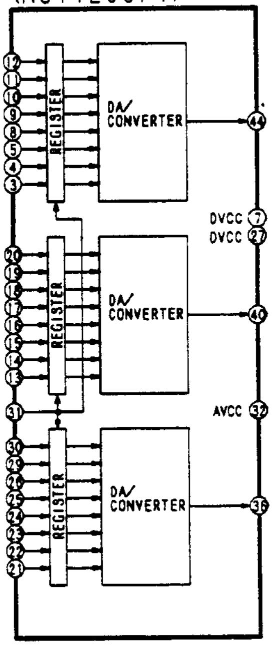
IC2008
(M35045-056SP)


DISPLAY CONTROL
VSS
CHARACTER GENERATOR
VDD
VDD
OOUTPUT CONTROL
OSD CLOCK GENERATOR

IC2011
(TLC2932IPW)


PHASE ERROR DET
VCO
1/2 DIVIDER
DGND
VDD
VDD

IC2013
(MC44200FT)


REGISTER
DA/ CONVERTER
DVCC
DVCC
REGISTER
DA/ CONVERTER
AVCC
REGISTER
DA/ CONVERTER

VOLTAGE CHART OF DIGITAL 1 SCHEMATIC DIAGRAM

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
IC2001		7	0	19	5.0	15	5.1	85	0.5	155	2.4	34	2.6	59	5.2	129	5.2	Q2008		Q3318		29	0
1	5.1	8	5.2	20	0	16	5.2	86	0.4	156	5.1	35	4.7	60	0	130	0.1	E	2.3	E	2.4	30	0
2	0	9	2.5	21	2.0	17	0	87	3.5	157	0	36	1.6	61	4.5	131	0.2	C	0	C	11.7	31	0
3	0	10	5.1	22	2.3	18	5.2	88	0.5	158	0	37	2.1	62	5.2	132	0	B	1.6	B	2.9	32	0
4	0	11	2.5	23	1.3	19	0.8	89	0	159	0	38	2.5	63	0	133	5.2	Q2009		Q3319		33	5.1
5	0	12	1.8	24	2.1	20	5.1	90	0.5	160	0	39	4.7	64	5.1	134	2.1	E	2.3	E	2.4	34	3.4
6	0	13	3.4	25	1.8	21	0	91	0	IC2010		40	1.7	65	0	135	0	C	0	C	2.4	35	3.3
7	0	14	2.8	26	0.9	22	2.3	92	2.0	1	5.2	41	2.1	66	4.9	136	5.2	B	1.6	B	2.4	P2002	
8	0	15	2.1	27	0.3	23	0.2	93	2.2	2	0	42	2.6	67	4.4	137	5.1	Q2010		Q3320		1	0
9	0	16	2.3	28	1.3	24	0.1	94	0.6	3	0	43	4.7	68	1.2	138	0	E	2.2	E	2.4	2	10.2
10	0	17	0.6	29	0	25	0	95	0.5	4	0.8	44	1.6	69	2.4	139	1.3	C	0	C	0	3	0
11	0.1	18	0.5	30	5.0	26	0	96	3.5	5	1.3	IC2015		70	4.4	140	0.8	B	1.6	B	1.8	4	0
12	0	19	5.1	31	5.0	27	5.2	97	0.3	6	2.3	1	5.2	71	0	141	0	Q3301		Q3321		5	0
13	0	20	1.9	32	0	28	3.5	98	0	7	0	2	0	72	0	142	0	E	2.9	E	2.4	6	10.2
14	0	21	5.2	33	0	29	0	99	0	8	0	3	5.1	73	5.2	143	0	C	0	C	11.7	7	0
15	-0.3	22	0	34	2.2	30	0	100	5.1	9	0	4	0	74	0	144	0	B	2.3	B	2.9	8	0
16	2.4	23	0	35	1.3	31	0	101	0	10	5.2	5	3.1	75	5.1	IC2017		Q3302		Q3322		9	0
17	1.4	24	3.6	36	2.0	32	5.1	102	2.7	11	0	6	1.7	76	5.1	1	11.7	E	6.2	E	2.4	10	0.1
18	5.1	25	3.6	37	1.8	33	0	103	3.3	12	2.2	7	1.7	77	0	2	5.0	C	10.9	C	2.3	11	1.6
19	5.1	26	0.3	38	0.9	34	0	104	1.7	13	5.0	8	0	78	0	3	0	B	6.9	B	2.3	12	1.6
20	5.1	27	0	39	0.3	35	0	105	2.6	14	5.0	9	2.1	79	0	IC2016		Q3303		Q3323		13	3.2
IC2002		28	0.5	40	1.3	36	0	106	2.4	IC2011		10	2.1	80	0	1	0	E	2.3	E	2.4	14	5.1
1	5.1	IC2005		41	0	37	0.5	107	0.9	1	5.2	11	0	81	0	2	0	C	6.2	C	0	15	2.1
2	0	1	1.6	42	5.0	38	0.5	108	0	2	5.1	12	5.2	82	0	3	0	B	2.9	B	1.8	16	2.1
3	0	2	0	43	1.7	39	0	109	1.7	3	2.1	13	3.3	83	0	4	0	Q3304		Q3324		17	0.4
4	0	3	0.9	44	5.0	40	5.1	110	0	4	0.8	14	1.2	84	0	5	0	E	6.1	E	2.4	18	0.4
5	0	4	2.4	45	0	41	0	111	2.7	5	1.3	15	1.2	85	0	6	0	C	10.8	C	5.0	19	0.4
6	0	5	1.4	46	3.7	42	0	112	3.3	6	2.5	16	0	86	0	7	2.3	B	6.8	B	3.0	20	0.4
7	0	6	0	47	3.8	43	0	113	1.7	7	0	17	2.1	87	0	8	2.3	Q3305		Q3325		21	0.4
8	0	7	0	48	4.5	44	0	114	2.6	8	0	18	2.1	88	1.0	9	0	E	2.4	E	10.2	22	3.8
9	0	8	5.2	IC2007		45	0	115	2.4	9	0	19	0	89	0	10	0	C	6.1	C	11.5	23	0.4
10	0	9	2.4	1	5.1	46	0	116	0.9	10	0	20	0.4	90	0.5	11	0	B	3.0	B	10.9	24	2.2
11	2.7	10	5.1	2	0	47	0	117	0	11	0	21	3.7	91	0	12	2.3	Q3306		Q3326		25	2.2
12	3.1	11	2.6	3	5.1	48	0	118	1.6	12	2.5	22	0.4	92	1.3	13	2.3	E	3.0	E	10.2	26	1.3
13	1.9	12	1.7	IC2008		49	0	119	0	13	3.1	23	0.4	93	2.8	14	0	C	0	C	11.5	27	1.3
14	2.3	13	3.4	1	1.7	50	3.0	120	5.1	14	5.0	24	5.2	94	2.8	15	0	B	2.3	B	10.9	28	3.3
15	2.3	14	2.8	2	0	51	1.5	121	0	IC2013		25	0	95	2.8	16	0	Q3307		Q3327		29	2.1
16	1.0	15	2.1	3	4.9	52	1.5	122	0	1	1.2	26	0.4	96	0	17	0	E	6.1	E	10.0	30	2.1
17	0	16	2.2	4	4.5	53	1.6	123	5.2	2	0	27	0.4	97	5.2	18	0	C	10.9	C	11.5	31	1.7
18	1.6	17	0.6	5	4.4	54	1.8	124	1.4	3	1.1	28	0.4	98	0	19	0	B	6.8	B	10.8	32	1.7
19	5.1	18	0.5	6	2.4	55	1.8	125	2.4	4	0	29	0	99	0	20	5.1	Q3308				33	3.1
20	5.1	19	5.1	7	0	56	0.5	126	0	5	0.7	30	2.1	100	5.1			E	2.3	P2001		34	0
IC2003		20	1.9	8	5.0	57	1.0	127	0	6	0	31	2.1	101	0	Q2001		C	2.9	1	0	35	5.1
1	5.1	21	5.2	9	0	58	0.3	128	0	7	5.1	32	5.1	102	3.5	E	5.0	B	6.2	2	0	36	0
2	0	22	0	10	0	59	1.4	129	0	8	0.6	33	3.2	103	5.2	C	5.0	Q3309		3	0	37	0
3	0	23	0	11	0	60	5.1	130	0	9	0.9	34	1.6	104	1.3	B	5.2	E	2.9	4	5.2	38	0
4	0	24	3.7	12	0	61	0	131	1.3	10	0.9	35	0	105	5.2	Q2002		C	0	5	5.2	39	10.0
5	0	25	3.5	13	0	62	1.0	132	0.3	11	0.8	36	5.2	106	0.1	E	5.0	B	2.2	6	5.2	40	0
6	0	26	0.3	14	0	63	0	133	0.9	12	0.8	37	0	107	0	C	3.0	Q3310		7	5.2		
7	0	27	0	15	0	64	0	134	1.8	13	0.9	38	0	108	5.2	B	5.2	E	2.9	8	0.4	TP2001	0.8
8	0	28	0.5	16	0	65	0	135	1.9	14	0.4	39	1.6	109	0	Q2003		C	0	9	4.7	TP2002	1.3
9	0	IC2006		17	0	66	0	136	1.3	15	0.9	40	0.1	110	0	E	0	B	2.3	10	0.5	TP3301	2.3
10	0	1	0	18	4.5	67	0	137	2.3	16	1.3	41	1.7	111	5.2	C	0	Q3311		11	2.4	TP3302	2.3
11	2.7	2	1.9	19	5.1	68	0	138	1.8	17	1.5	42	0	112	5.2	B	0.6	E	2.4	12	4.5	TP3303	2.2
12	3.1	3	0	20	5.0	69	0	139	0.5	18	1.0	43	0	113	5.2	Q2004		C	11.7	13	0	TP3304	10.2
13	1.9	4	2.4	IC2009		70	0	140	5.2	19	1.1	44	0	114	5.2	E	5.1	B	2.9	14	0	TP3305	10.0
14	2.3	5	4.7	1	5.1	71	0	141	0	20	1.1	45	0	115	0	C	5.1	Q3315		15	0	TP3306	10.2
15	2.3	6	2.3	2	0	72	0	142	1.9	21	1.5	46	0	116	2.5	B	0	E	2.4	16	0		
16	1.0	7	2.8	3	1.6	73	0	143	2.2	22	0.3	47	0	117	3.2	Q2005		C	2.4	17	0		
17	0	8	4.7	4	0	74	0	144	1.7	23	1.0	48	5.2	118	1.7	E	1.3	B	2.4	18	0		
18	1.6	9	3.2	5	0.9	75	0	145	0	24	0.6	49	0	119	2.5	C	4.7	Q3316		19	0		
19	5.1	10	0	6	2.4	76	2.0	146	0	25	2.1	50	0	120	2.5	B	1.9	E	2.4	20	0		
20	5.1	11	3.7	7	2.5	77	3.6	147	0	26	1.8	51	0	121	0	Q2006		C	2.3	21	0		
IC2004		12	5.0	8	1.6	78	5.2	148	0	27	5.1	52	0	122	0	E	1.3	B	2.3	22	0		
1	1.7	13	4.5	9	3.2	79	0	149	0	28	0	53	0	123	1.6	C	4.7	Q3317		23	0		
2	0	14	3.7	10	2.5	80	0	150	0	29	1.6	54	0	124	0	B	1.9	E	2.4	24	0		
3	1.0	15	2.3	11	0	81	0	151	0	30	1.6	55	4.9	125	0	Q2007		C	0	25	0		
4	2.4	16	0	12	0	82	0	152	0	31	1.3	56	4.9	126	0	E	1.3	B	1.8	26	0		
5	1.4	17	0	13	5.2	83	2.0	153	0	32	5.0	57	4.4	127	2.2	C	4.7			27	0		
6	0	18	0	14	5.2	84	2.2	154	4.4	33	1.2	58	4.1	128	0	B	1.9			28	0		

I/O CHART FOR GATE ARRAY
IC2009 (UPD97226-001)

PIN NO.	PIN NO.	I/O	FUNCTION	PIN NO.	PIN NO.	I/O	FUNCTION
1	VDD	—	+3.3V	57	DA5	O	RGB Signal Data Output 5
2	VSTA	O	Auto Adjust V-Start Signal Output	58	DA6	O	RGB Signal Data Output 6
3	ADJ7	O	Auto Adjust Data Output 7	59	DA7	O	RGB Signal Data Output 7
4	ADJ6	O	Auto Adjust Data Output 6	60	VDD	—	+3.3V
5	ADJ5	O	Auto Adjust Data Output 5	61	GND	—	Grounding Terminal
6	ADJ4	O	Auto Adjust Data Output 4	62	GOSD	I	Graphical OSD Control Signal Input
7	ADJ3	O	Auto Adjust Data Output 3	63	GOSD0	I	(Not used)
8	ADJ2	O	Auto Adjust Data Output 2	64	GOSD1	I	(Not used)
9	ADJ1	O	Auto Adjust Data Output 1	65	GOSD2	I	(Not used)
10	ADJ0	O	Auto Adjust Data Output 0	66	GOSD3	I	(Not used)
11	GND	—	Grounding Terminal	67	OSDMB	I	(Not used)
12	PADJ7	O	Auto Position Adjust Data Output 7	68	OSDMA	I	OSD Mask Control Signal Input A
13	PADJ6	O	Auto Position Adjust Data Output 6	69	OSDB	I	(Not used)
14	PADJ5	O	Auto Position Adjust Data Output 5	70	OSDA	I	OSD Control Signal Input A
15	PADJ4	O	Auto Position Adjust Data Output 4	71	BUNRI	I	(Not used)
16	PADJ3	O	Auto Position Adjust Data Output 3	72	TEST0	I	(Not used)
17	PADJ2	O	Auto Position Adjust Data Output 2	73	TEST1	I	(Not used)
18	PADJ1	O	Auto Position Adjust Data Output 1	74	TMC1	I	(Not used)
19	PADJ0	O	Auto Position Adjust Data Output 0	75	TMC2	I	(Not used)
20	VDD	—	+3.3V	76	SRCK	O	Read Clock Signal Output
21	GND	—	Grounding Terminal	77	FRE	O	Read Enable Output
22	WCLK	I	Write Dot Clock Signal Input	78	RSTR	O	Read Address Reset Output
23	HSTW	I	Write H-Start Pulse Input	79	GND	—	Grounding Terminal
24	VSTW	I	Write V-Start Pulse Input	80	GND	—	Grounding Terminal
25	TEST	I	(Not used)	81	VDD	—	+3.3V
26	TEST	I	(Not used)	82	N.C	—	(Not used)
27	FIO	O	Field in Deluxe Signal Output	83	FRD0	I	Field Memory Data Input 0
28	FI	I	Field in Deluxe Signal Input	84	FRD1	I	Field Memory Data Input 1
29	TEST	I	(Not used)	85	FRD2	I	Field Memory Data Input 2
30	GND	—	Grounding Terminal	86	FRD3	I	Field Memory Data Input 3
31	TEST	I	(Not used)	87	FRD4	I	Field Memory Data Input 4
32	CLR	I	Reset : LOW	88	FRD5	I	Field Memory Data Input 5
33	TEST	I	(Not used)	89	FRD6	I	Field Memory Data Input 6
34	TEST	I	(Not used)	90	FRD7	I	Field Memory Data Input 7
35	TEST	I	(Not used)	91	GND	—	Grounding Terminal
36	TEST	I	(Not used)	92	FRD8	I	Field Memory Data Input 8
37	RCLK	I	Read Dot Clock Signal Input	93	FRD9	I	Field Memory Data Input 9
38	HSTR	I	Read H-Start Pulse Input	94	FRD10	I	Field Memory Data Input 10
39	VSTR	I	Read V-Start Pulse Input	95	FRD11	I	Field Memory Data Input 11
40	VDD	—	+3.3V	96	FRD12	I	Field Memory Data Input 12
41	GND	—	Grounding Terminal	97	FRD13	I	Field Memory Data Input 13
42	GND	—	Grounding Terminal	98	FRD14	I	Field Memory Data Input 14
43	TEST	I	(Not used)	99	FRD15	I	Field Memory Data Input 15
44	TEST	I	(Not used)	100	VDD	—	+3.3V
45	TEST	I	(Not used)	101	GND	—	Grounding Terminal
46	TEST	I	(Not used)	102	FWD0	O	Field Memory Data Output 0
47	TEST	I	(Not used)	103	FWD1	O	Field Memory Data Output 1
48	TEST	I	(Not used)	104	FWD2	O	Field Memory Data Output 2
49	TEST	I	(Not used)	105	FWD3	O	Field Memory Data Output 3
50	DACKB	O	(Not used)	106	FWD4	O	Field Memory Data Output 4
51	DACK	O	(Not used)	107	FWD5	O	Field Memory Data Output 5
52	DA0	O	RGB Signal Data Output 0	108	FWD6	O	Field Memory Data Output 6
53	DA1	O	RGB Signal Data Output 1	109	FWD7	O	Field Memory Data Output 7
54	DA2	O	RGB Signal Data Output 2	110	GND	—	Grounding Terminal
55	DA3	O	RGB Signal Data Output 3	111	FWD8	O	Field Memory Data Output 8
56	DA4	O	RGB Signal Data Output 4	112	FWD9	O	Field Memory Data Output 9

PIN NO.	PIN NO.	I/O	FUNCTION	PIN NO.	PIN NO.	I/O	FUNCTION
113	FWD10	O	Field Memory Data Output 10	137	AD1	I	RGB Signal Data Input 1
114	FWD11	O	Field Memory Data Output 11	138	AD0	I	RGB Signal Data Input 0
115	FWD12	O	Field Memory Data Output 12	139	CLP	O	Clamp Pulse Output
116	FWD13	O	Field Memory Data Output 13	140	VDD	—	+3.3V
117	FWD14	O	Field Memory Data Output 14	141	GND	—	Grounding Terminal
118	FWD15	O	Field Memory Data Output 15	142	ADCK	O	(Not used)
119	FMWC	I	Field Memory Write Control	143	ADCKB	O	(Not used)
120	VDD	—	+3.3V	144	DLA	O	(Not used)
121	GND	—	Grounding Terminal	145	DLAI	I	Auto Position External Detection Signal
122	GND	—	Grounding Terminal	146	TEST	I	(Not used)
123	RSTW	O	Field Memory Write Address Reset Signal	147	TEST	I	(Not used)
124	FWE	O	Field Memory Write Enable Signal	148	TEST	I	(Not used)
125	SWCK	O	Field Memory Write Clock Signal	149	TEST	I	(Not used)
126	N.C	—	(Not used)	150	TEST	I	(Not used)
127	DLAEXT	I	(Not used)	151	TEST	I	(Not used)
128	TEST	I	(Not used)	152	TEST	I	(Not used)
129	TEST	I	(Not used)	153	SCS	I	Serial Chip Select Signal
130	TEST	I	(Not used)	154	SCLK	I	Serial Clock Signal
131	AD7	I	RGB Signal Data Input 7	155	SDATA	I	Serial Data Signal
132	AD6	I	RGB Signal Data Input 6	156	COLOR1	I	(Not used)
133	AD5	I	RGB Signal Data Input 5	157	COLOR0	I	Color Set Up 0
134	AD4	I	RGB Signal Data Input 4	158	HSTA	O	Auto Adjust H-Start Signal
135	AD3	I	RGB Signal Data Input 3	159	GND	—	Grounding Terminal
136	AD2	I	RGB Signal Data Input 2	160	GND	—	Grounding Terminal

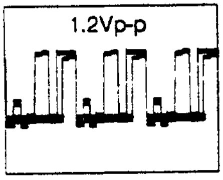
I/O CHART FOR GATE ARRAY
IC2015 (UPD65802-186)

PIN NO.	PIN NO.	I/O	FUNCTION	PIN NO.	PIN NO.	I/O	FUNCTION
1	VDD	—	+5V	57	VIDEO VS	I	Video V-Sync
2	N.C	—	(Not used)	58	VIDEO HS	I	Video H-Sync
3	H REV	O	Left/Right Reverse Signal (Negative)	59	VDD	—	+5V
4	X HREV	O	Left/Right Reverse Signal (Positive)	60	GND	—	Grounding Terminal
5	DY OUT	O	Y-Shift Data	61	OSD XHS	O	OSD H-Sync
6	CLY OUT	O	Y-Transmit Clock (Negative)	62	OSD XVS	O	OSD V-Sync
7	XCLY OUT	O	Y-Transmit Clock (Positive)	63	TST8	I	(Not used)
8	TST1	—	(Not used)	64	VIDEO H	I	Sync Signal Select : HIGH
9	ENB1 B	O	Enable Pulse 1 (Blue)	65	F INDX	O	Field Index Signal
10	ENB2 B	O	Enable Pulse 2 (Blue)	66	SYS VS	O	System V-Sync
11	GND	—	Grounding Terminal	67	SYS HS	O	System H-Sync
12	VDD	—	+5V	68	TGCSEL	I	Chip Select (Serial)
13	DX OUT	O	X-Shift Data	69	TGSDATA	I	Serial Data
14	CLX OUT	O	X-Transmit Clock (Negative)	70	TGSCLK	I	Serial Clock
15	XCLX OUT	O	X-Transmit Clock (Positive)	71	GND	—	Grounding Terminal
16	TST2	—	(Not used)	72	GND	—	Grounding Terminal
17	ENB1 G	O	Enable Pulse 1 (Green)	73	VDD	—	+5V
18	ENB2 G	O	Enable Pulse 2 (Green)	74	N.C	—	(Not used)
19	TST3	I	(Not used)	75	ADJSEL0	I	Auto Setup Data Select 0
20	SHCLK7	O	Sample Hold Clock 7	76	ADJSEL1	I	Auto Setup Data Select 1
21	SHCLK6	O	Sample Hold Clock 6	77	ADJD0	O	Auto Setup Data 0
22	SHCLK5	O	Sample Hold Clock 5	78	ADJD1	O	Auto Setup Data 1
23	SHCLK4	O	Sample Hold Clock 4	79	ADJD2	O	Auto Setup Data 2
24	VDD	—	+5V	80	ADJD3	O	Auto Setup Data 3
25	GND	—	Grounding Terminal	81	ADJD4	O	Auto Setup Data 4
26	SHCLK3	O	Sample Hold Clock 3	82	ADJD5	O	Auto Setup Data 5
27	SHCLK2	O	Sample Hold Clock 2	83	ADJD6	O	Auto Setup Data 6
28	SHCLK1	O	Sample Hold Clock 1	84	ADJD7	O	Auto Setup Data 7
29	TST4	I	(Not used)	85	PC HI	I	Bus Request Pulse : High (PC Card)
30	ENB1 R	O	Enable Pulse 1 (Red)	86	STILL HI	I	Freeze : HIGH
31	ENB2 R	O	Enable Pulse 2 (Red)	87	TST9	I	(Not used)
32	V REV	O	Top/Bottom Reverse Signal (Negative)	88	BLANK	O	Blanking Signal
33	NRG	O	Panel Drive Pulse	89	R VS	O	Read V-Sync
34	XFRP	O	Video Signal Inverter Pulse	90	R HS	O	Read H-Sync
35	N.C	—	(Not used)	91	N.C	—	(Not used)
36	VDD	—	+5V	92	R CLK	O	Read Clock
37	GND	—	Grounding Terminal	93	N.C	—	(Not used)
38	GND	—	Grounding Terminal	94	OSC IN	I	Reference Clock for IC2015
39	FRP	O	Video Signal Reverse Pulse	95	OSC OUT	O	Oscillation
40	R CLAMP	O	Video Signal Clamp Pulse	96	GND	—	Grounding Terminal
41	CLO	O	(Not used)	97	VDD	—	+5V
42	RCON3	O	(Not used)	98	MODE	I	(Not used)
43	RCON2	O	(Not used)	99	TST10	I	(Not used)
44	RCON1	O	(Not used)	100	XRESET	I	Reset
45	F OUT	O	(Not used)	101	MWCONTI	O	Memory Write Control
46	TST5	I	(Not used)	102	FITG	O	Field Index
47	TST6	I	(Not used)	103	PROFI	I	Field Index
48	VDD	—	+5V	104	VPD0	I	V-Difference Data 0
49	GND	—	Grounding Terminal	105	VPD1	I	V-Difference Data 1
50	REG Q3	O	(Not used)	106	VPD2	I	V-Difference Data 2
51	REG Q2	O	(Not used)	107	N.C	—	(Not used)
52	REG Q1	O	(Not used)	108	VDD	—	+5V
53	REG Q0	O	(Not used)	109	GND	—	Grounding Terminal
54	TST7	I	(Not used)	110	GND	—	Grounding Terminal
55	PC VS	I	PC V-Sync	111	VPD3	I	V-Position Difference Data 3
56	PC HS	I	PC H-Sync	112	HPD0	I	H-Position Difference Data 0

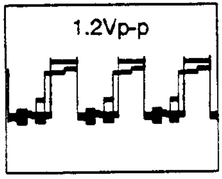
PIN NO.	PIN NO.	I/O	FUNCTION	PIN NO.	PIN NO.	I/O	FUNCTION
113	HPD1	I	H-Position Difference Data 1	129	VDD	—	+5V
114	HPD2	I	H-Position Difference Data 2	130	W VS	O	Write V-Sync
115	HPD3	I	H-Position Difference Data 3	131	W HS	O	Write H-Sync
116	DIN0	I	Auto Setup Video Data 0	132	PLL SEL	O	PLL Select
117	DIN1	I	Auto Setup Video Data 1	133	XPLL SEL	O	PLL Select
118	DIN2	I	Auto Setup Video Data 2	134	PLL CLK1	I	PLL Clock 1
119	DIN3	I	Auto Setup Video Data 3	135	PLL CLK2	I	PLL Clock 2
120	DIN4	I	Auto Setup Video Data 4	136	PLL BIAS	O	PLL Bias Select
121	DIN5	I	Auto Setup Video Data 5	137	PLL DEV	O	PLL Divider Select
122	DIN6	I	Auto Setup Video Data 6	138	PLL VHLD	O	PLL PFD-Inhibit Signal
123	DIN7	I	Auto Setup Video Data 7	139	PLL H	O	PLL Phase Comparison Signal
124	V MSTART	I	V-Memory Write Start	140	REF HS	O	PLL Phase Comparison Reference Signal
125	H MSTART	I	H-Memory Write Start	141	TST11	I	(Not used)
126	GND	—	Grounding Terminal	142	TST12	I	(Not used)
127	W CLK	O	Write Clock	143	GND	—	Grounding Terminal
128	GND	—	Grounding Terminal	144	GND	—	Grounding Terminal

WAVEFORM OF DIGITAL 1 SCHEMATIC DIAGRAM

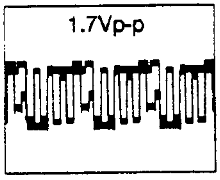
D1



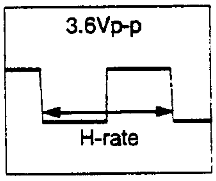
D3



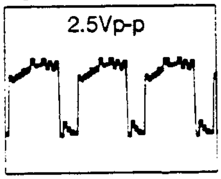
D5



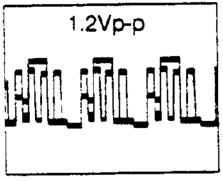
D7



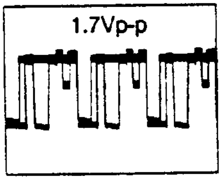
D9



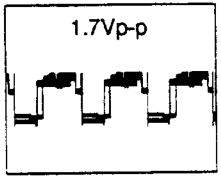
D2



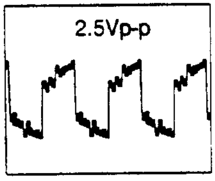
D4



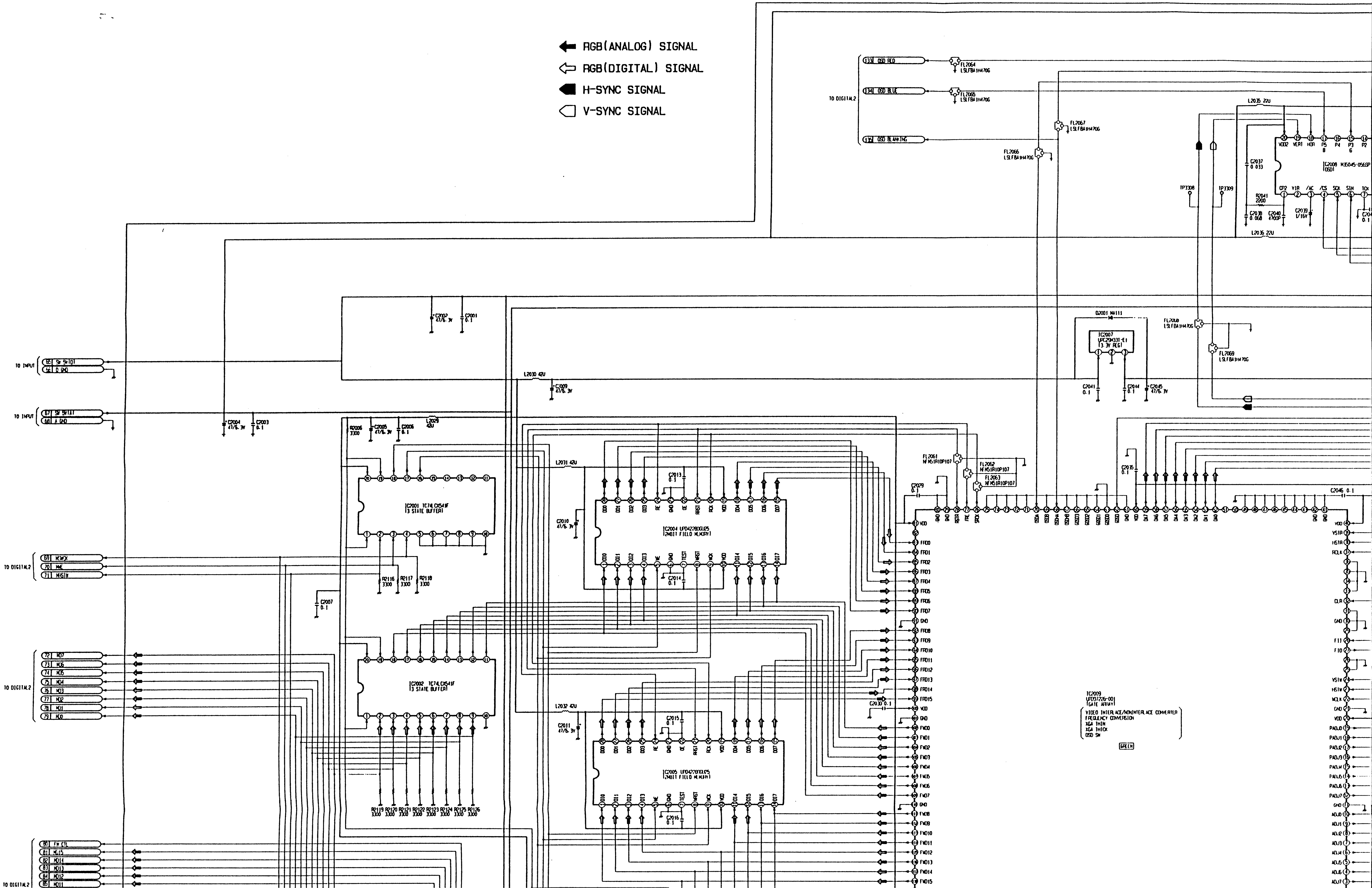
D6



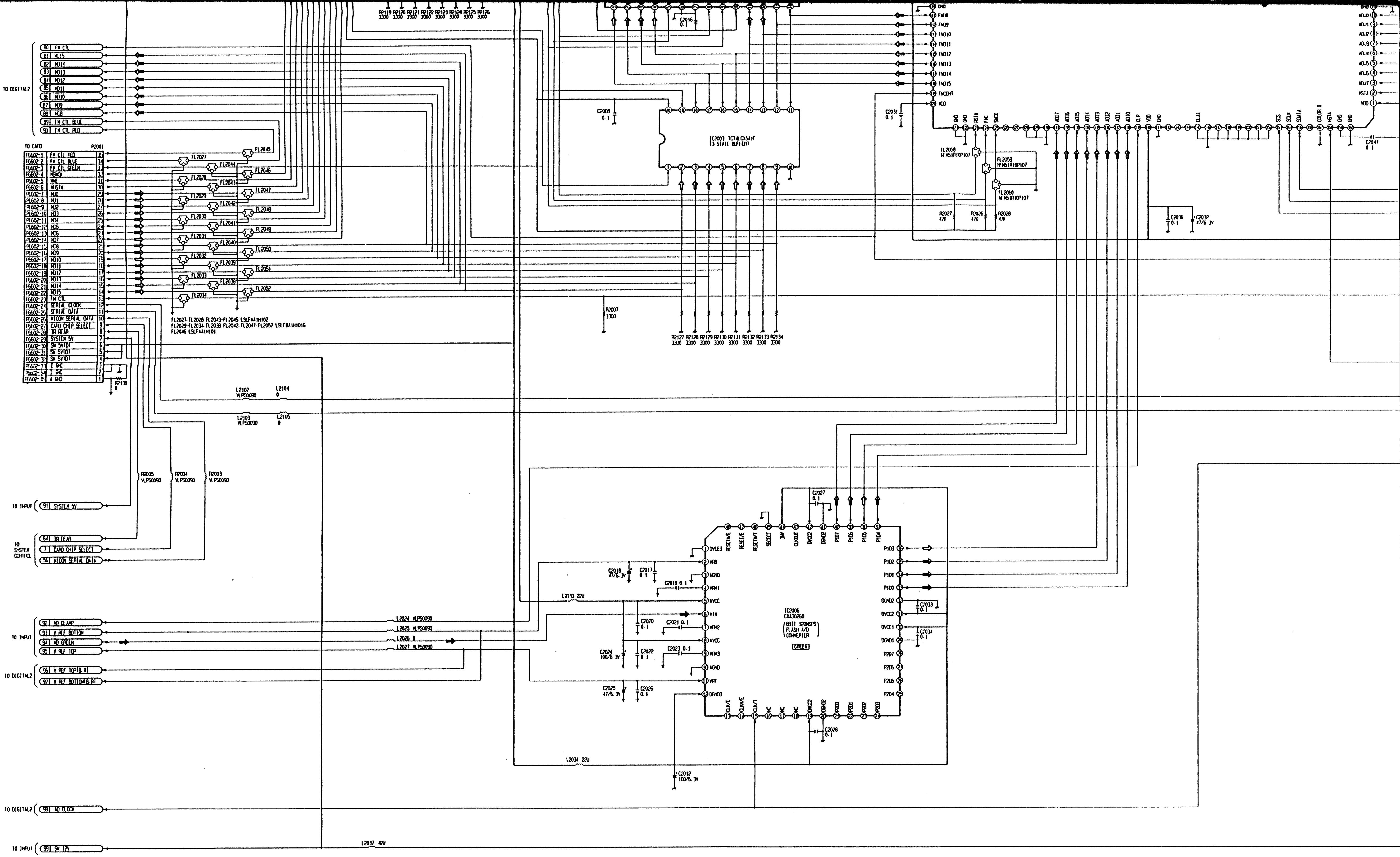
D8

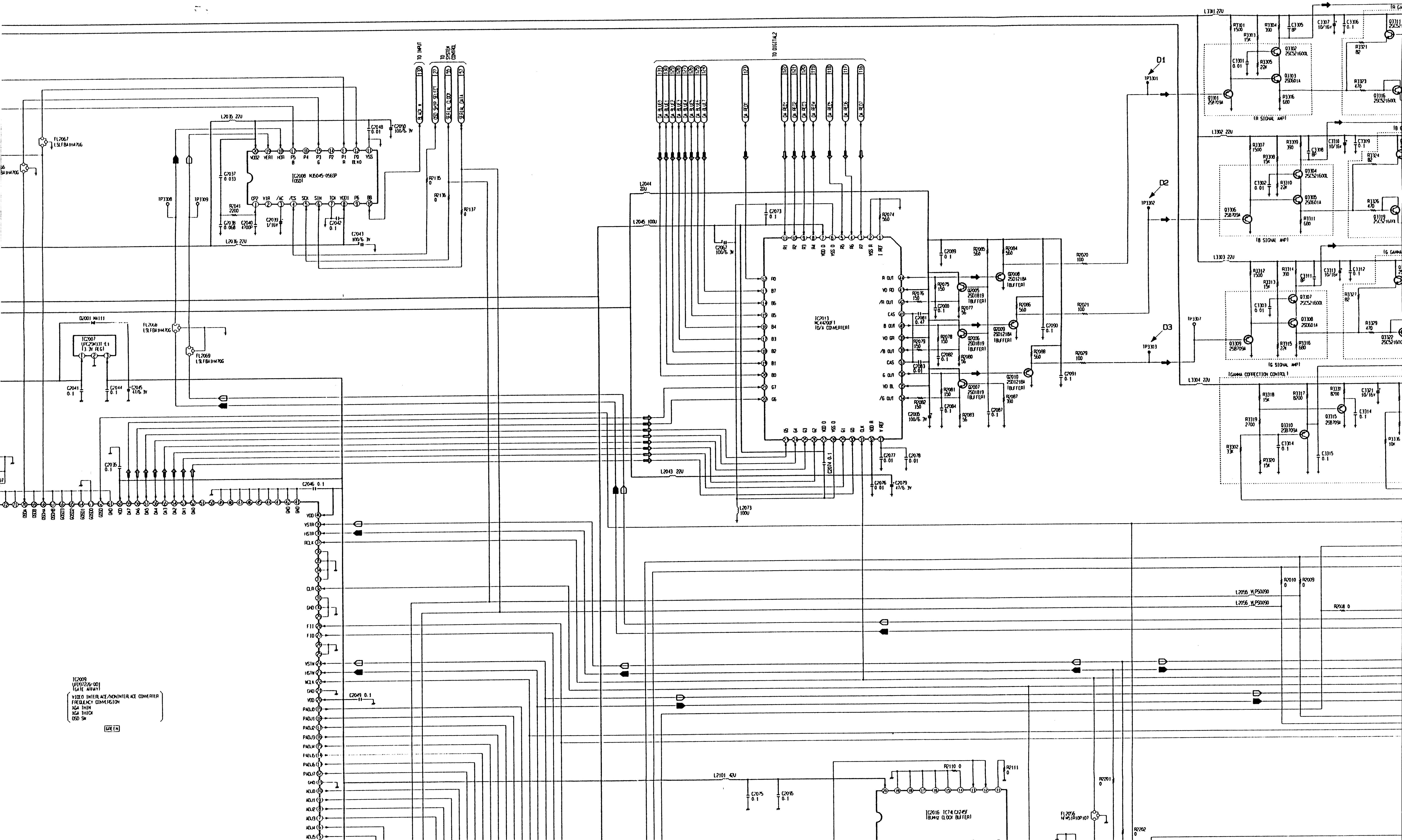


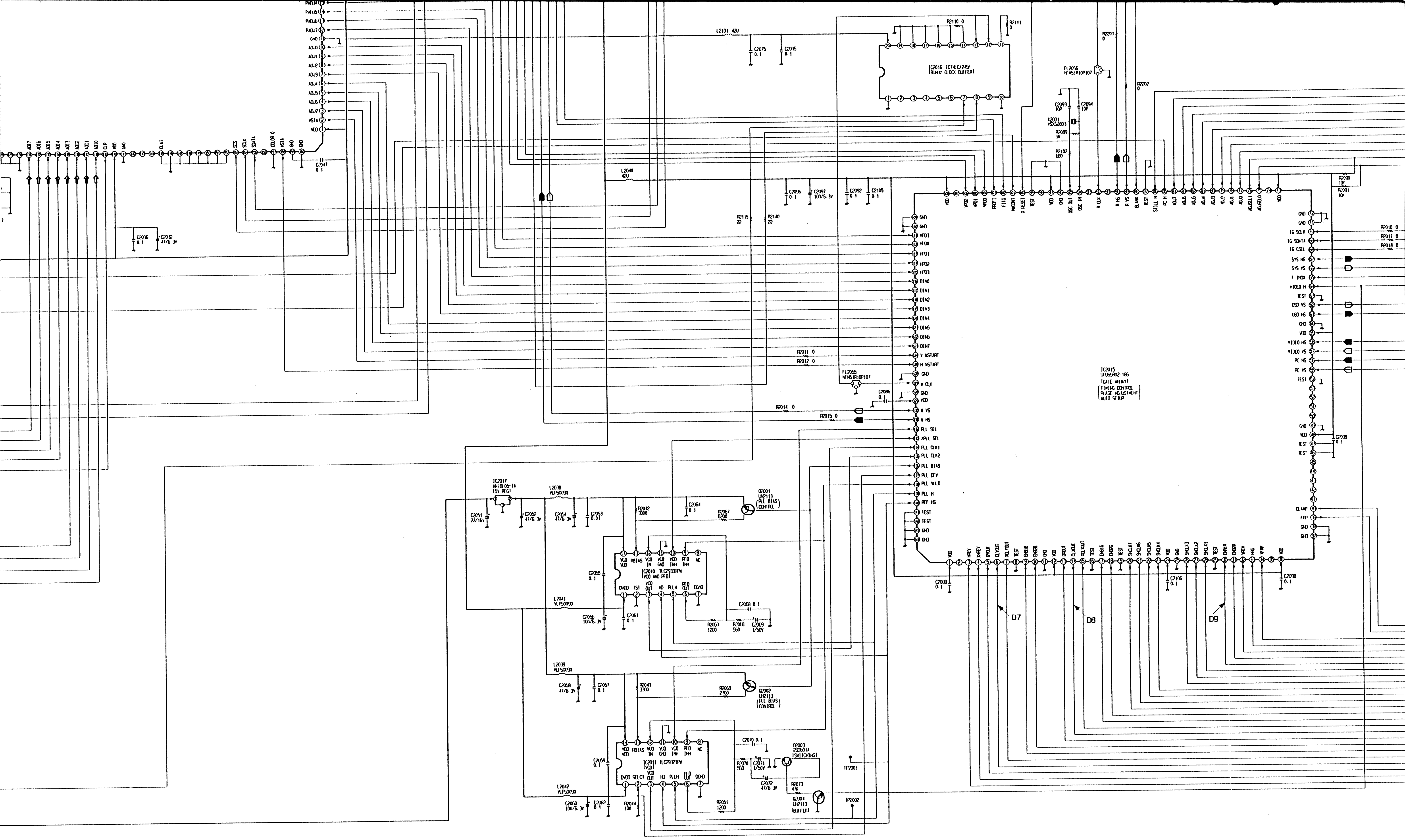
DIGITAL 1 SCHEMATIC DIAGRAM

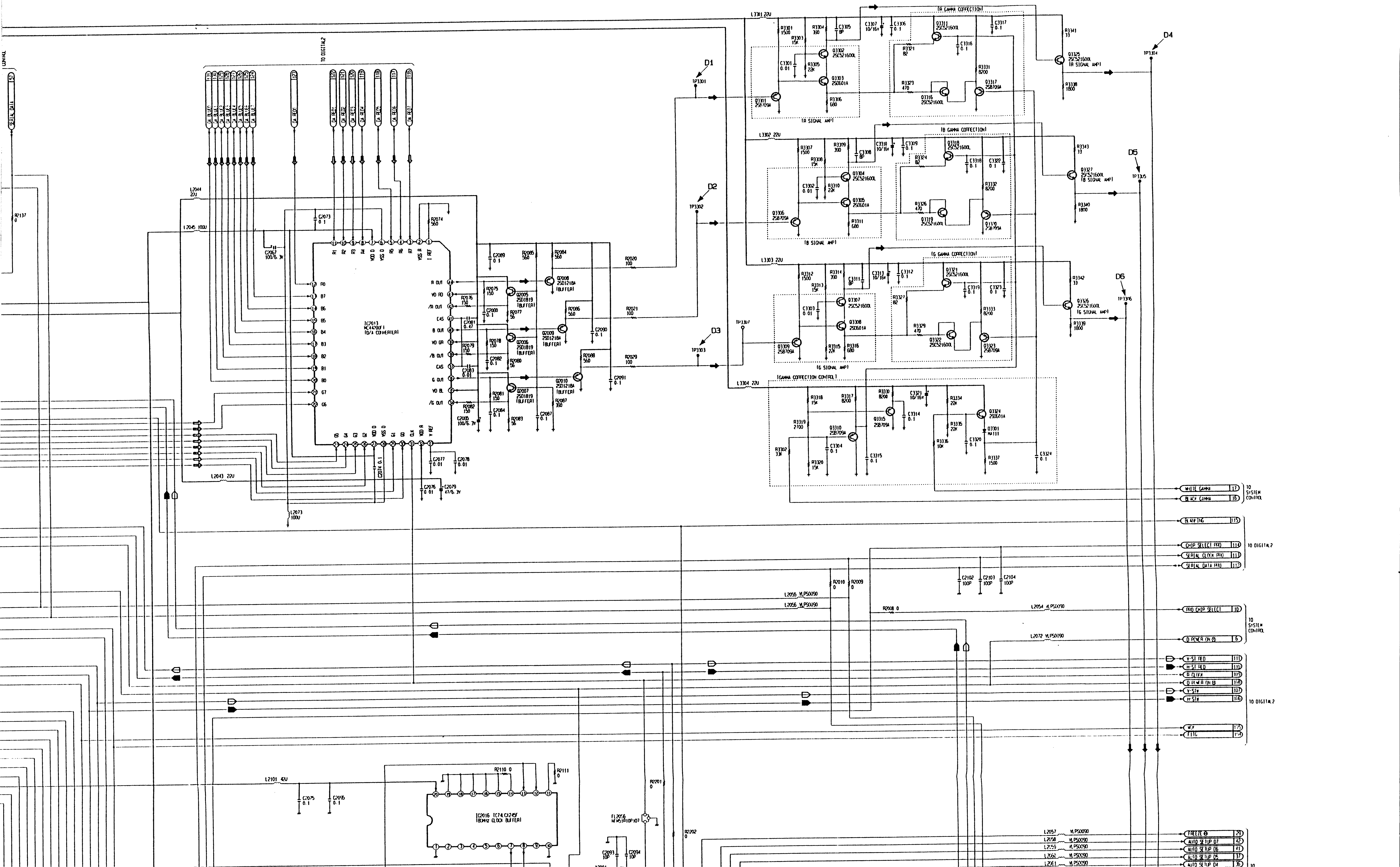


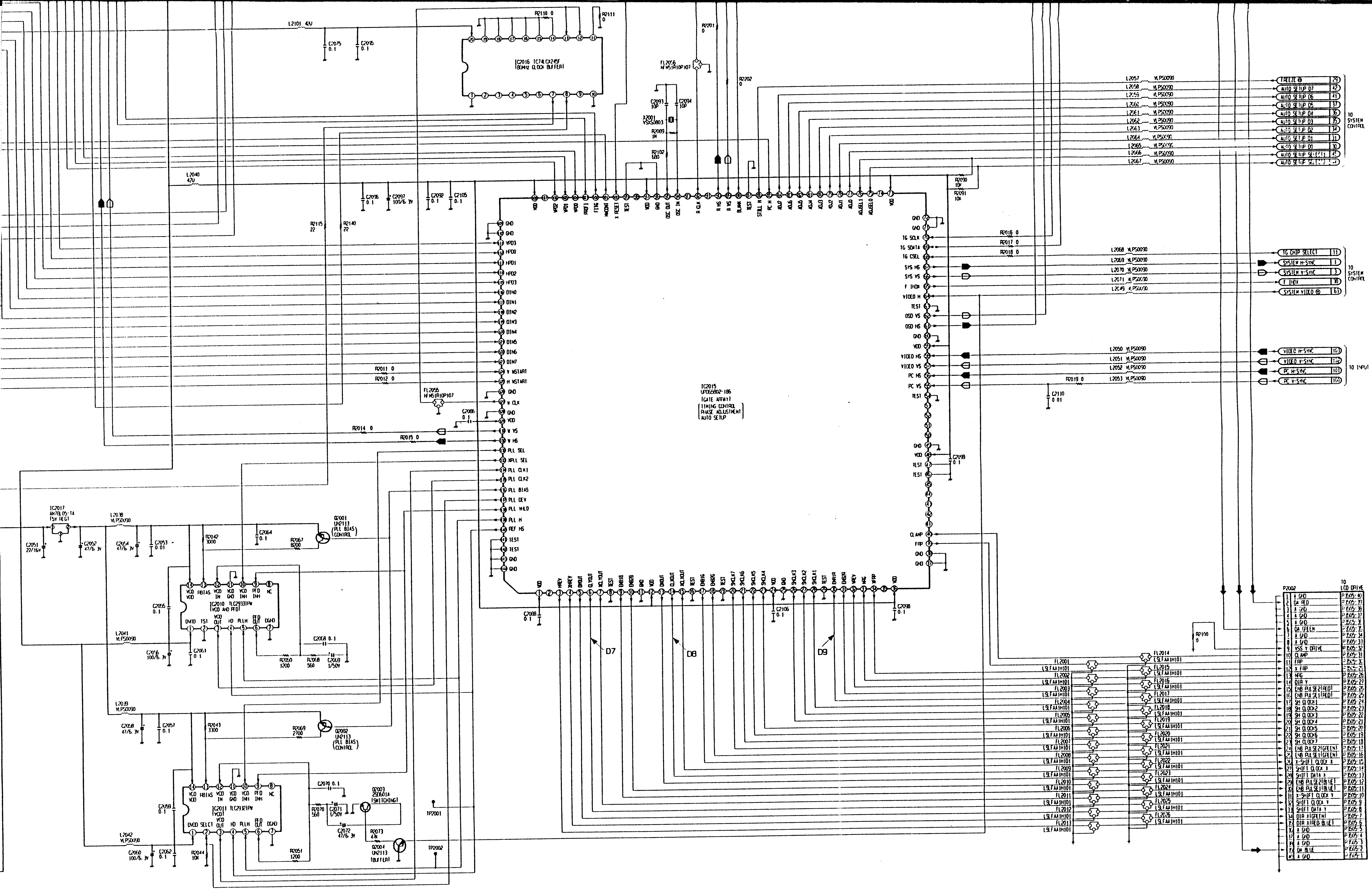
RGB(ANALOG) SIGNAL
RGB(DIGITAL) SIGNAL
H-SYNC SIGNAL
V-SYNC SIGNAL
TO DIGITAL2
133 OSD RED
134 OSD BLUE
136 OSD BLANKING
FL2064 LSLFBA1H470G
FL2065 LSLFBA1H470G
FL2066 LSLFBA1H470G
FL2067 LSLFBA1H470G
L2035 22U
L2036 22U
IC2008 M35045-056SP (OSD)
VDD2 VERT HOR P5 B P4 P3 G P2
CP2 VIR /AC /CS SCK SIN 1CK
C2037 0.033
C2038 0.068
C2040 4700P
C2039 1/16V
R2041 2200
TP3308
TP3309
D2001 MA111
IC2007 UPC29M33T-E1 (3.3V REG)
FL2068 LSLFBA1H470G
FL2069 LSLFBA1H470G
C2041 0.1
C2044 0.1
C2045 47/6.3V
TO INPUT
65 5V 5V(D)
66 D GND
67 5V 5V(A)
68 A GND
C2002 47/6.3V
C2001 0.1
C2004 47/6.3V
C2003 0.1
L2030 42U
C2009 47/6.3V
R2006 3300
C2005 47/6.3V
C2006 0.1
L2029 42U
IC2001 TC74LCX541F (3 STATE BUFFER)
IC2002 TC74LCX541F (3 STATE BUFFER)
L2031 42U
C2010 47/6.3V
C2013 0.1
IC2004 UPD42280GU25 (2HBIT FIELD MEMORY)
C2014 0.1
L2032 42U
C2011 47/6.3V
C2015 0.1
IC2005 UPD42280GU25 (2HBIT FIELD MEMORY)
C2016 0.1
69 MSWCK
70 MWE
71 MRSTW
R2116 3300
R2117 3300
R2118 3300
C2007 0.1
72 MD7
73 MD6
74 MD5
75 MD4
76 MD3
77 MD2
78 MD1
79 MD0
R2119 3300 R2120 3300 R2121 3300 R2122 3300 R2123 3300 R2124 3300 R2125 3300 R2126 3300
80 FM CTL
81 MD15
82 MD14
83 MD13
84 MD12
85 MD11
FL2061 NFM51R10P107
FL2062 NFM51R10P107
FL2063 NFM51R10P107
C2029 0.1
C2035 0.1
C2046 0.1
C2030 0.1
VDD FFD0 FFD1 FFD2 FFD3 FFD4 FFD5 FFD6 FFD7 GND FFD8 FFD9 FFD10 FFD11 FFD12 FFD13 FFD14 FFD15 VDD GND FWD0 FWD1 FWD2 FWD3 FWD4 FWD5 FWD6 FWD7 GND FWD8 FWD9 FWD10 FWD11 FWD12 FWD13 FWD14 FWD15
VDD VSTR HSTR RCLK CLR GND FI1 FI0 VSTW HSTW WCLK GND VDD PADU0 PADU1 PADU2 PADU3 PADU4 PADU5 PADU6 PADU7 GND ADU0 ADU1 ADU2 ADU3 ADU4 ADU5 ADU6 ADU7
IC2009 UPD37226-001 (GATE ARRAY)
VIDEO INTERLACE/NONINTERLACE CONVERTER
FREQUENCY CONVERSION
XGA THIN
XGA THICK
OSD SW
GREEN


TO DIGITAL2
80 FM CTL
81 MO15
82 MO14
83 MO13
84 MO12
85 MO11
86 MO10
87 MO9
88 MO8
89 FM CTL BLUE
90 FM CTL RED
TO CARD
P2001
P6602-1 FM CTL RED
P6602-2 FM CTL BLUE
P6602-3 FM CTL GREEN
P6602-4 MEMCK
P6602-5 MWE
P6602-6 MRSTW
P6602-7 MO0
P6602-8 MO1
P6602-9 MO2
P6602-10 MO3
P6602-11 MO4
P6602-12 MO5
P6602-13 MO6
P6602-14 MO7
P6602-15 MO8
P6602-16 MO9
P6602-17 MO10
P6602-18 MO11
P6602-19 MO12
P6602-20 MO13
P6602-21 MO14
P6602-22 MO15
P6602-23 FM CTL
P6602-24 SERIAL CLOCK
P6602-25 SERIAL DATA
P6602-26 MICON SERIAL DATA
P6602-27 CARD CHIP SELECT
P6602-28 IR REAR
P6602-29 SYSTEM 5V
P6602-30 SW 5V(D)
P6602-31 SW 5V(D)
P6602-32 SW 5V(D)
P6602-33 D GND
P6602-34 D GND
P6602-35 A GND
R2138 0
FL2027 FL2028 FL2029 FL2030 FL2031 FL2032 FL2033 FL2034
FL2038 FL2039 FL2040 FL2041 FL2042 FL2043 FL2044 FL2045
FL2046 FL2047 FL2048 FL2049 FL2050 FL2051 FL2052
FL2027, FL2028, FL2043-FL2045 LSLFAA1H102
FL2029-FL2034, FL2038-FL2042, FL2047-FL2052 LSLFBA1H1016
FL2046 LSLFAA1H101
R2119 R2120 R2121 R2122 R2123 R2124 R2125 R2126 3300
C2016 0.1
C2008 0.1
IC2003 TC74LCX541F (3 STATE BUFFER)
R2007 3300
R2127 R2128 R2129 R2130 R2131 R2132 R2133 R2134 3300
C2031 0.1
GND FMD8 FMD9 FMD10 FMD11 FMD12 FMD13 FMD14 FMD15 FMCONT VDD
FL2058 NFM51R10P107
FL2059 NFM51R10P107
FL2060 NFM51R10P107
R2027 47K
R2026 47K
R2028 47K
C2036 0.1
C2032 47/6.3V
C2047 0.1
ADJ0 ADJ1 ADJ2 ADJ3 ADJ4 ADJ5 ADJ6 ADJ7 VSTA VDD
L2102 VLPS0090
L2104 0
L2103 VLPS0090
L2105 0
R2005 VLPS0090
R2004 VLPS0090
R2003 VLPS0090
TO INPUT 91 SYSTEM 5V
TO SYSTEM CONTROL
64 IR REAR
71 CARD CHIP SELECT
56 MICON SERIAL DATA
TO INPUT
92 AD CLAMP
93 Y REF BOTTOM
94 AD GREEN
95 Y REF TOP
TO DIGITAL2
96 Y REF TOP(B,R)
97 Y REF BOTTOM(B,R)
L2024 VLPS0090
L2025 VLPS0090
L2026 0
L2027 VLPS0090
L2033 22U
C2018 47/6.3V
C2017 0.1
C2019 0.1
C2020 0.1
C2021 0.1
C2022 0.1
C2023 0.1
C2024 100/6.3V
C2025 47/6.3V
C2026 0.1
C2027 0.1
C2028 0.1
C2033 0.1
C2034 0.1
IC2006 CXA3026Q
(8BIT 120MSPS FLASH A/D CONVERTER)
GREEN
DVEE3 VRB AGND VRM1 AVCC VIN VRM2 AVCC VRM3 AGND VRT DGND3
CLK/E CLKN/E CLK/T NC NC NC DVCC2 DGND2 P200 P201 P202 P203
P204 P205 P206 P207 DGND1 DVCC1 DVCC2 DGND2 P100 P101 P102 P103
RESETN/E RESET/E RESETN/T SELECT INV CLKOUT DVCC2 DGND2 P107 P106 P105 P104
L2034 22U
C2012 100/6.3V
TO DIGITAL2 98 AD CLOCK
TO INPUT 99 SW 12V
L2037 47U

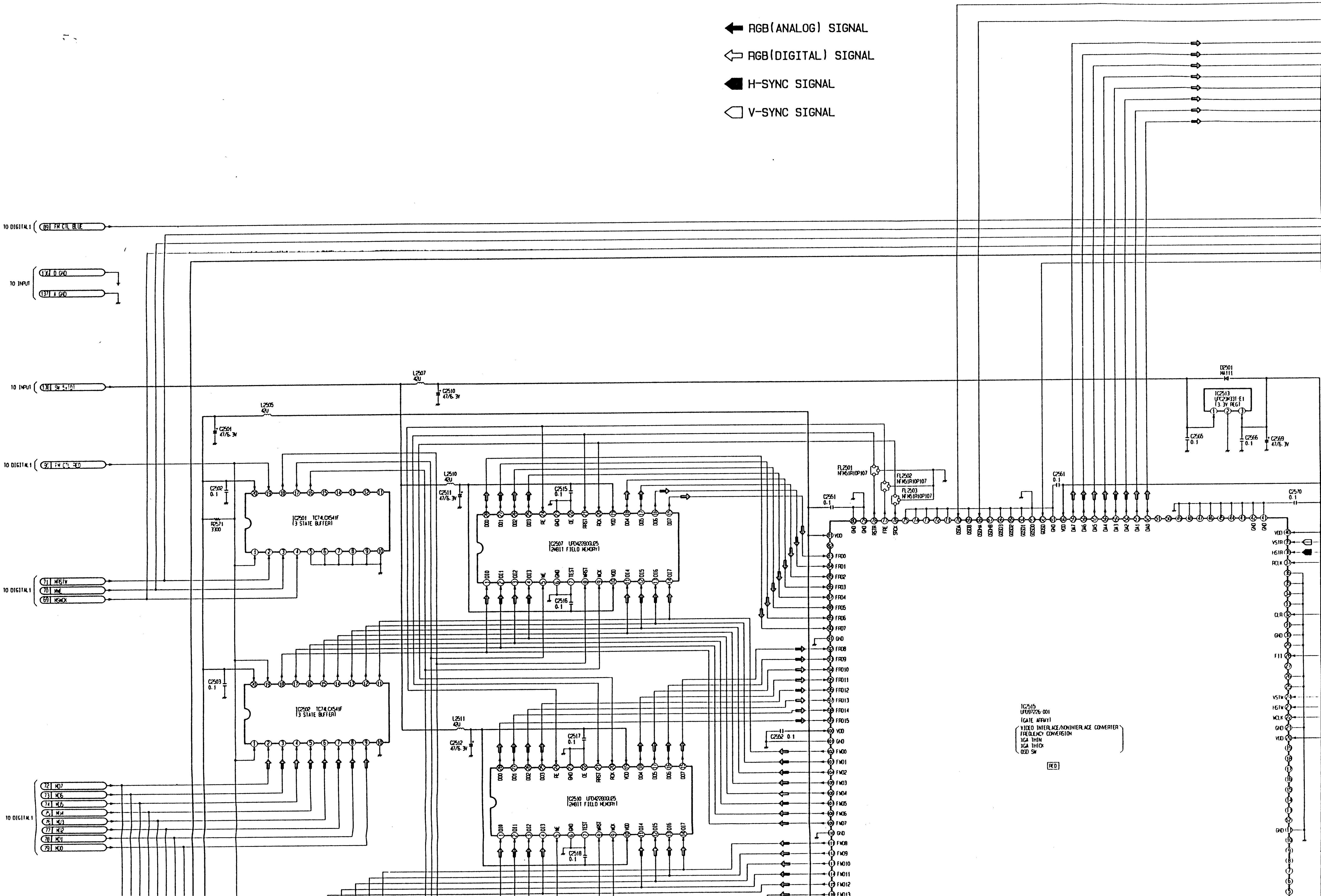

TO INPUT
TO SYSTEM CONTROL
TO DIGITAL2
BLACK
OSD SHIP SELECT
SERIAL CLOCK
SERIAL DATA
IC2008 MJ5045-056SP
L2015 22U
L2016 22U
C2048 0.01
C2050 100/6.3V
C2037 0.033
R2041 2200
C2038 0.068
C2040 4700P
C2039 1/16V
C2042 0.1
C2043 100/6.3V
R2135 0
R2136 0
R2137 0
FL2067 LSLFBA1H470G
FL2068 LSLFBA1H470G
FL2069 LSLFBA1H470G
TP3308
TP3309
D2001 MA111
IC2007 UPC29M33T-E1 (3.3V REG)
C2041 0.1
C2044 0.1
C2045 47/6.3V
C2035 0.1
C2046 0.1
L2044 22U
L2045 100U
C2073 0.1
C2067 100/6.3V
R2074 560
IC2013 MC44200FT (D/A CONVERTER)
R OUT
VO RD
/R OUT
CAS
B OUT
VO GR
/B OUT
G OUT
VO BL
/G OUT
I REF
Y REF
VSS R
VDD R
CLK
C2089 0.1
C2080 0.1
C2081 0.47
C2082 0.1
C2083 0.01
C2084 0.1
C2085 100/6.3V
C2087 0.1
C2090 0.1
C2091 0.1
R2075 150
R2076 150
R2077 56
R2078 150
R2079 150
R2080 56
R2081 150
R2082 150
R2083 56
R2084 560
R2085 560
R2086 560
R2087 330
R2088 560
Q2005 2SD1819 (BUFFER)
Q2006 2SD1819 (BUFFER)
Q2007 2SD1819 (BUFFER)
Q2008 2SD1218A (BUFFER)
Q2009 2SD1218A (BUFFER)
Q2010 2SD1218A (BUFFER)
R2020 100
R2021 100
R2029 100
L2043 22U
C2014 0.1
C2077 0.01
C2078 0.01
C2076 0.01
C2079 47/6.3V
L2073 100U
D1
D2
D3
TP3301
TP3302
TP3303
TP3307
L3301 22U
L3302 22U
L3303 22U
L3304 22U
R3301 1500
R3303 15K
R3304 330
R3305 22K
R3306 680
C3301 0.01
C3305 8P
C3307 10/16V
C3306 0.1
Q3301 2SB709A
Q3302 2SC5216001
Q3303 2SD601A
R3321 82
R3323 470
Q3316 2SC5216001
(R SIGNAL AMP)
R3307 1500
R3308 15K
R3309 330
R3310 22K
R3311 680
C3302 0.01
C3308 8P
C3310 10/16V
C3309 0.1
Q3304 2SC5216001
Q3305 2SD601A
Q3306 2SB709A
R3324 82
R3326 470
Q3319
(B SIGNAL AMP)
R3312 1500
R3313 15K
R3314 330
R3315 22K
R3316 680
C3303 0.01
C3311 8P
C3312 10/16V
C3312 0.1
Q3307 2SC5216001
Q3308 2SD601A
Q3309 2SB709A
R3327
R3329 470
Q3322 2SC5216001
(G SIGNAL AMP)
(GAMMA CORRECTION CONTROL)
R3318 15K
R3317 8200
R3330 8200
C3321 10/16V
C3314 0.1
Q3315 2SB709A
R3319 2700
Q3310 2SB709A
C3304 0.1
R3302 33K
R3320 15K
C3315 0.1
R3336 10K
VSTR
HSTR
RCLK
CLR
GND
F11
F10
VSTW
HSTW
WCLK
VDD
PADJ0
PADJ1
PADJ2
PADJ3
PADJ4
PADJ5
PADJ6
PADJ7
ADJ0
ADJ1
ADJ2
ADJ3
ADJ4
ADJ5
C2049 0.1
IC2009 UPD7226-001 (GATE ARRAY)
VIDEO INTERLACE/NONINTERLACE CONVERTER
FREQUENCY CONVERSION
XGA THIN
XGA THICK
OSD SW
GREEN
L2101 47U
C2075 0.1
C2016 0.1
R2110 0
R2111 0
IC2016 TC74LC245F (8MHZ CLOCK BUFFER)
L2056 VLP50090
R2010 0
R2009 0
R2008 0
R2201 0
R2202 0
FL2056 NFM51R10P107

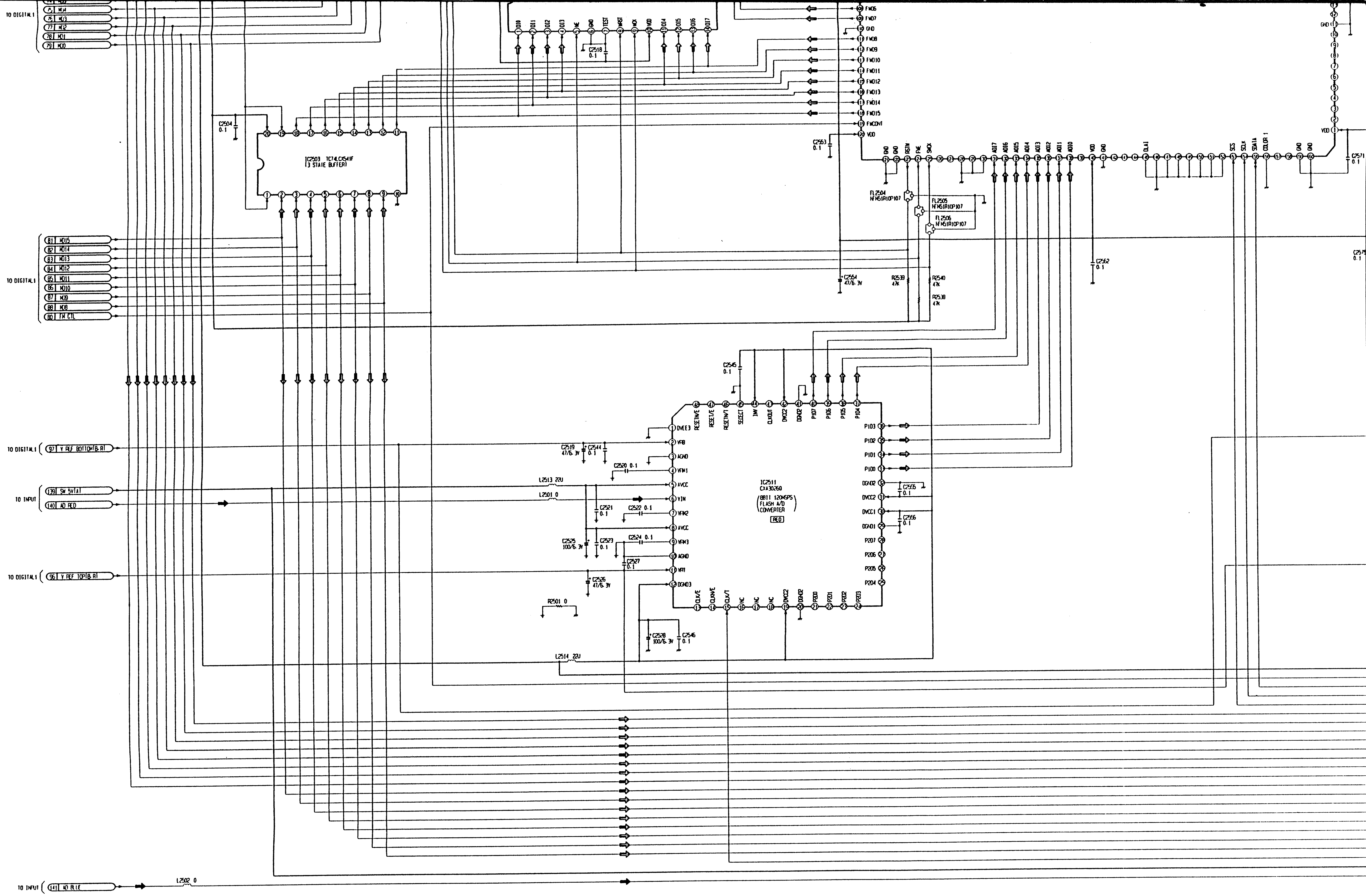

IC2016 IC74AC245F (CLOCK BUFFER)
IC2015 LF05G802-186 (GATE ARRAY) (TIMING CONTROL PHASE ADJUSTMENT AUTO SETUP)
IC2017 AN78L05-TA (5V REG)
IC2010 TLC2933IPW (VCO AND PFD)
IC2011 TLC2932IPW (VCO)
Q2001 UN2113 (PLL BIAS CONTROL)
Q2002 UN2113 (PLL BIAS CONTROL)
Q2003 2SD601A (SWITCHING)
Q2004 UN2113 (BUFFER)
X2001
FL2056
TP2001
TP2002
D7
D8
D9

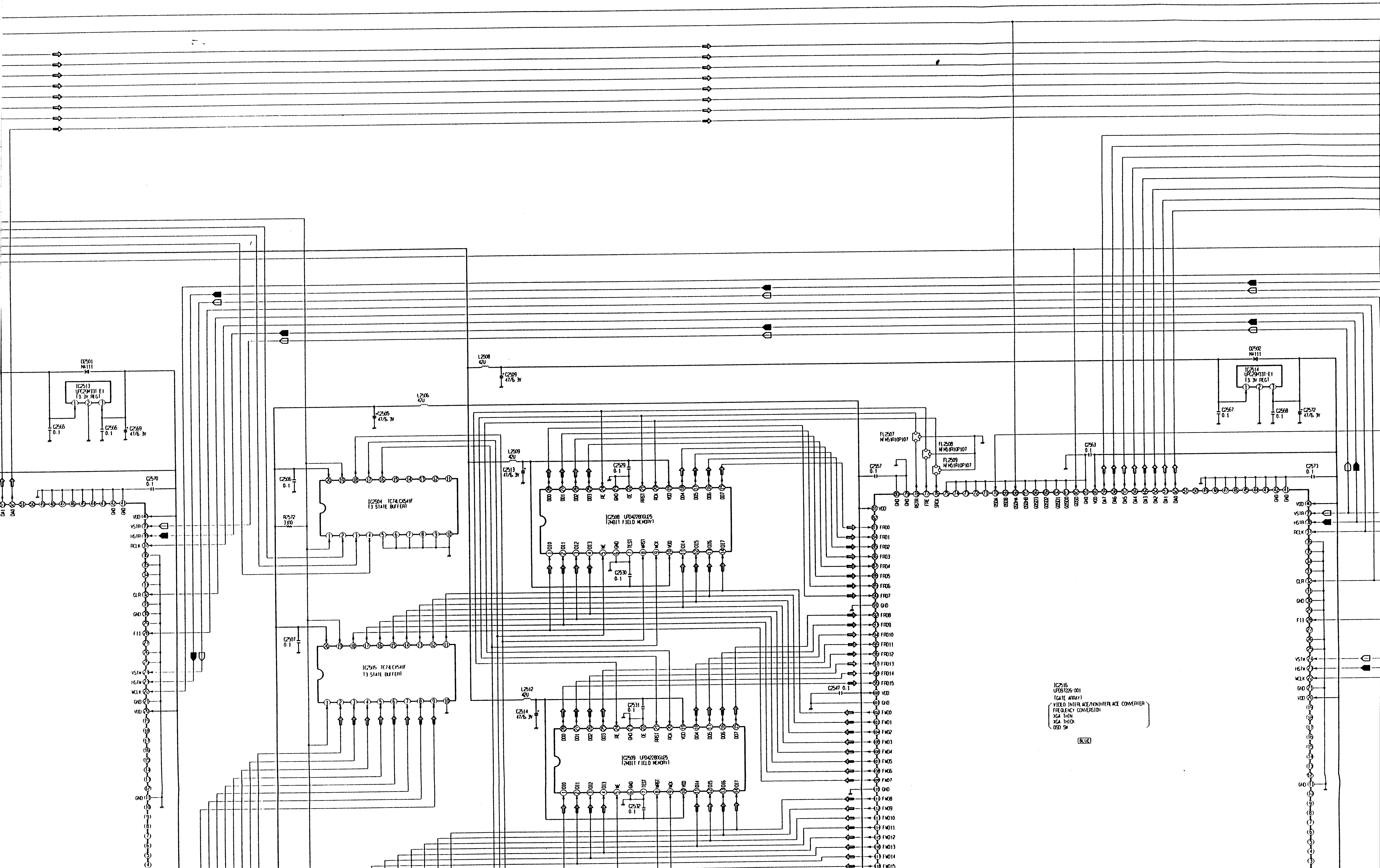

TO DIGITAL2
SERIAL DATA
R2137 0
L2044 22U
L2045 100U
C2067 100/6.3V
C2073 0.1
R2074 560
IC2013 MC44200FT (D/A CONVERTER)
R OUT
VO RO
/R OUT
CAS
B OUT
VO GR
/B OUT
CAS
G OUT
VO BL
/G OUT
C2077 0.01
C2078 0.01
C2076 0.01
C2079 47/6.3V
C2074 0.1
L2043 22U
L2073 100U
R2075 150
R2076 150
Q2005 2SD1819 (BUFFER)
Q2008 2SD1218A (BUFFER)
R2084 560
R2085 560
C2089 0.1
C2080 0.1
R2077 56
C2081 0.47
Q2009 2SD1218A (BUFFER)
R2086 560
Q2006 2SD1819 (BUFFER)
R2078 150
R2079 150
C2082 0.1
R2080 56
C2090 0.1
C2083 0.01
R2088 560
Q2010 2SD1218A (BUFFER)
Q2007 2SD1819 (BUFFER)
R2081 150
R2082 150
C2084 0.1
R2083 56
C2085 100/6.3V
R2087 390
C2087 0.1
C2091 0.1
R2020 100
R2021 100
R2029 100
D1
TP3301
D2
TP3302
D3
TP3303
TP3307
D4
TP3304
D5
TP3305
D6
TP3306
L3301 22U
R3301 1500
R3303 15K
R3304 330
C3305 8P
C3307 10/16V
C3306 0.1
C3301 0.01
R3305 22K
Q3302 2SC5216000L
Q3303 2SD601A
Q3301 2SB709A
R3306 680
(R SIGNAL AMP)
(R GAMMA CORRECTION)
Q3311 2SC5216000L
C3317 0.1
C3316 0.1
R3321 82
R3331 8200
R3323 470
Q3316 2SC5216000L
Q3317 2SB709A
R3341 33
Q3325 2SC5216000L (R SIGNAL AMP)
R3338 1800
L3302 22U
R3307 1500
R3308 15K
R3309 330
C3308 8P
C3310 10/16V
C3309 0.1
C3302 0.01
R3310 22K
Q3304 2SC5216000L
Q3305 2SD601A
Q3306 2SB709A
R3311 680
(B SIGNAL AMP)
(B GAMMA CORRECTION)
Q3318 2SC5216000L
R3324 82
C3318 0.1
C3322 0.1
R3332 8200
R3326 470
Q3319 2SC5216000L
Q3320 2SB709A
R3343 33
Q3327 2SC5216000L (B SIGNAL AMP)
R3340 1800
L3303 22U
R3312 1500
R3313 15K
R3314 330
C3311 8P
C3313 10/16V
C3312 0.1
C3303 0.01
Q3307 2SC5216000L
Q3308 2SD601A
Q3309 2SB709A
R3315 22K
R3316 680
(G SIGNAL AMP)
(G GAMMA CORRECTION)
Q3321 2SC5216000L
R3327 82
C3319 0.1
C3323 0.1
R3333 8200
R3329 470
Q3322 2SC5216000L
Q3323 2SB709A
R3342 33
Q3326 2SC5216000L (G SIGNAL AMP)
R3339 1800
L3304 22U
(GAMMA CORRECTION CONTROL)
R3318 15K
R3317 8200
R3330 8200
C3321 10/16V
R3334 22K
Q3324 2SD601A
R3319 2700
Q3310 2SB709A
Q3315 2SB709A
C3314 0.1
R3335 22K
D3301 MA111
R3302 33K
C3304 0.1
R3320 15K
C3315 0.1
R3336 10K
C3320 0.1
R3337 1500
C3324 0.1
WHITE GAMMA 17
BLACK GAMMA 16
TO SYSTEM CONTROL
BLANKING 115
CHIP SELECT PRO 114
SERIAL CLOCK PRO 113
SERIAL DATA PRO 112
TO DIGITAL2
R2010 0
R2009 0
C2102 100P
C2103 100P
C2104 100P
L2056 VLP50090
R2008 0
L2054 VLP50090
PRO CHIP SELECT 10
L2072 VLP50090
D POWER ON H 6
TO SYSTEM CONTROL
V-ST PRO 111
H-ST PRO 110
R CLOCK 109
D POWER ON H 108
V-STN 107
H-STN 106
TO DIGITAL2
HCP 125
FTTG 124
L2101 42U
C2075 0.1
C2015 0.1
R2110 0
R2111 0
IC2016 TC74C245F (80MHz CLOCK BUFFER)
R2201 0
FL2056 NFM51R10P107
R2202 0
C2093 10P
C2094 10P
L2057 VLP50090
L2058 VLP50090
L2059 VLP50090
L2060 VLP50090
L2061 VLP50090
FREEZE 39
AUTO SETUP D7 42
AUTO SETUP D6 41
AUTO SETUP D5 37
AUTO SETUP D4 36

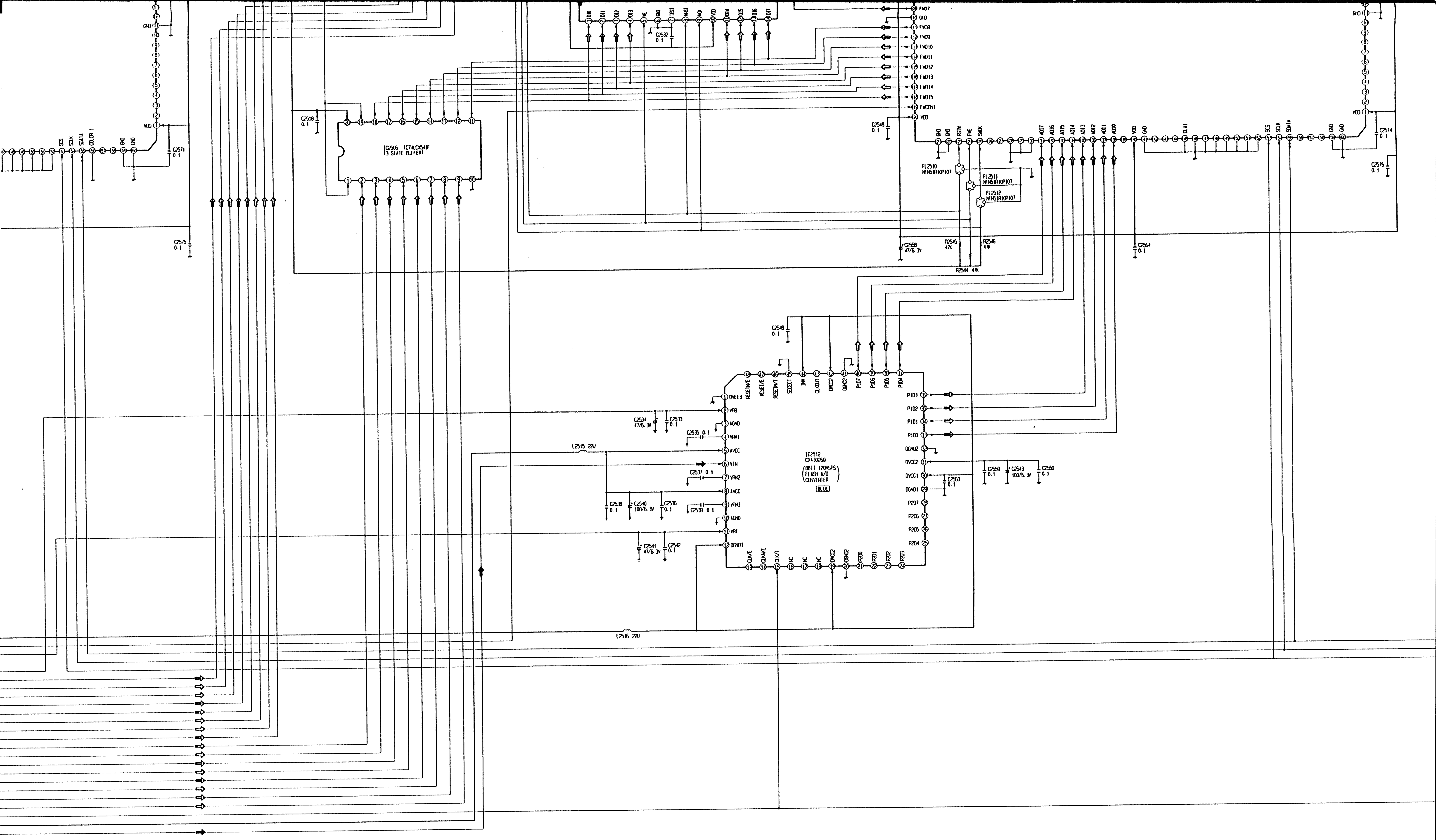

IC2016 IC74LCX245F
(80MHz CLOCK BUFFER)
R2110 0
R2111 0
L2101 42U
C2075 0.1
C2095 0.1
R2201 0
R2202 0
FL2056 NFM51R10P107
C2093 10P
C2094 10P
X2001 VSX50803
R2089 1M
R2102 680
L2040 42U
C2096 0.1
C2097 100/6.3V
C2092 0.1
C2105 0.1
R2115 22
R2140 22
R2090 10K
R2091 10K
IC2015
UPD65802-186
(GATE ARRAY)
(TIMING CONTROL
PHASE ADJUSTMENT
AUTO SETUP)
VDD
VFD2
VFD1
VFD0
FREF1
ETRG
MAGON1
X RESET
TEST
VDD
GND
OSC OUT
OSC IN
R CLK
R HS
R VS
BLANK
TEST
STILL M
PC M
ADJ7
ADJ6
ADJ5
ADJ4
ADJ3
ADJ2
ADJ1
ADJ0
ADJSEL1
ADJSEL0
VDD
GND
GND
HFD3
HFD0
HFD1
HFD2
HFD3
DIN0
DIN1
DIN2
DIN3
DIN4
DIN5
DIN6
DIN7
V NSTART
H NSTART
GND
V CLK
GND
VDD
V VS
V HS
PLL SEL
XPLL SEL
PLL CLK1
PLL CLK2
PLL BIAS
PLL DEV
PLL WLD
PLL H
REF HS
TEST
TEST
GND
GND
TG SCLK
TG SDATA
TG CSEL
SYS HS
SYS VS
F INDX
VIDEO H
TEST
OSD VS
OSD HS
VIDEO HS
VIDEO VS
PC HS
PC VS
CLAMP
FRP
R2011 0
R2012 0
FL2055 NFM51R10P107
C2086 0.1
R2014 0
R2015 0
R2016 0
R2017 0
R2018 0
R2019 0
C2110 0.01
C2099 0.1
C2088 0.1
C2106 0.1
C2098 0.1
D7
D8
D9
L2057 VLP50090
L2058 VLP50090
L2059 VLP50090
L2060 VLP50090
L2061 VLP50090
L2062 VLP50090
L2063 VLP50090
L2064 VLP50090
L2065 VLP50090
L2066 VLP50090
L2067 VLP50090
FREEZE ⊕ 29
AUTO SETUP D7 42
AUTO SETUP D6 41
AUTO SETUP D5 37
AUTO SETUP D4 36
AUTO SETUP D3 35
AUTO SETUP D2 34
AUTO SETUP D1 31
AUTO SETUP D0 30
AUTO SETUP SELECT1 45
AUTO SETUP SELECT0
TO SYSTEM CONTROL
L2068 VLP50090
L2069 VLP50090
L2070 VLP50090
L2071 VLP50090
L2049 VLP50090
TG CHIP SELECT 11
SYSTEM H-SYNC 1
SYSTEM V-SYNC 3
F INDX 38
SYSTEM VIDEO ⊕ 63
TO SYSTEM CONTROL
L2050 VLP50090
L2051 VLP50090
L2052 VLP50090
L2053 VLP50090
VIDEO H-SYNC 103
VIDEO V-SYNC 102
PC H-SYNC 101
PC V-SYNC 100
TO INPUT
IC2017
AN78L05-TA
(5V REG)
C2051 22/16V
C2052 47/6.3V
L2038 VLP50090
C2054 47/6.3V
C2053 0.01
R2042 3000
C2064 0.1
R2067 8200
Q2001 UN2113 (PLL BIAS CONTROL)
IC2010 TLC2933IPW (VCO AND PFD)
VCO VDD
FBIAS
VCO IN
VCO GND
VCO INH
PFD INH
NC
DVDD
TS1
VCO OUT
FD
PLLH
PFD OUT
DGND
C2066 0.1
L2041 VLP50090
C2056 100/6.3V
C2061 0.1
C2068 0.1
R2050 1200
R2068 560
C2069 1/50V
L2039 VLP50090
C2058 47/6.3V
C2057 0.1
R2043 3300
R2069 2700
Q2002 UN2113 (PLL BIAS CONTROL)
IC2011 TLC2932IPW (VCO)
VCO VDD
HBIAS
VCO IN
VCO GND
VCO INH
PFD INH
NC
DVDD
SELCT
VCO OUT
FD
PLLH
PFD OUT
DGND
C2059 0.1
L2042 VLP50090
C2060 100/6.3V
C2062 0.1
R2044 10K
R2051 1200
C2070 0.1
R2070 560
C2071 1/50V
C2072 47/6.3V
Q2003 2SD601A (SWITCHING)
R2073 47K
Q2004 UN2113 (BUFFER)
TP2001
TP2002
R2100 0
FL2001 LSLFAA1H101
FL2002 LSLFAA1H101
FL2003 LSLFAA1H101
FL2004 LSLFAA1H101
FL2005 LSLFAA1H101
FL2006 LSLFAA1H101
FL2007 LSLFAA1H101
FL2008 LSLFAA1H101
FL2009 LSLFAA1H101
FL2010 LSLFAA1H101
FL2011 LSLFAA1H101
FL2012 LSLFAA1H101
FL2013 LSLFAA1H101
FL2014 LSLFAA1H101
FL2015 LSLFAA1H101
FL2016 LSLFAA1H101
FL2017 LSLFAA1H101
FL2018 LSLFAA1H101
FL2019 LSLFAA1H101
FL2020 LSLFAA1H101
FL2021 LSLFAA1H101
FL2022 LSLFAA1H101
FL2023 LSLFAA1H101
FL2024 LSLFAA1H101
FL2025 LSLFAA1H101
FL2026 LSLFAA1H101
P2002
TO LCD DRIVE
1 A GND P3505-40
2 DA RED P3505-39
3 A GND P3505-38
4 A GND P3505-37
5 A GND P3505-36
6 DA GREEN P3505-35
7 A GND P3505-34
8 A GND P3505-33
9 VSS Y DRIVE P3505-32
10 CLAMP P3505-31
11 FRP P3505-30
12 X FRP P3505-29
13 NFG P3505-28
14 DIR Y P3505-27
15 ENB PULSE2(RED) P3505-26
16 ENB PULSE1(RED) P3505-25
17 SH CLOCK1 P3505-24
18 SH CLOCK2 P3505-23
19 SH CLOCK3 P3505-22
20 SH CLOCK4 P3505-21
21 SH CLOCK5 P3505-20
22 SH CLOCK6 P3505-19
23 SH CLOCK7 P3505-18
24 ENB PULSE2(GREEN) P3505-17
25 ENB PULSE1(GREEN) P3505-16
26 X-SHIFT CLOCK X P3505-15
27 SHIFT CLOCK X P3505-14
28 SHIFT DATA X P3505-13
29 ENB PULSE2(BLUE) P3505-12
30 ENB PULSE1(BLUE) P3505-11
31 X-SHIFT CLOCK Y P3505-10
32 SHIFT CLOCK Y P3505-9
33 SHIFT DATA Y P3505-8
34 DIR X(GREEN) P3505-7
35 DIR X(RED, BLUE) P3505-6
36 A GND P3505-5
37 A GND P3505-4
38 A GND P3505-3
39 DA BLUE P3505-2
40 A GND P3505-1

DIGITAL 2 SCHEMATIC DIAGRAM


RGB(ANALOG) SIGNAL
RGB(DIGITAL) SIGNAL
H-SYNC SIGNAL
V-SYNC SIGNAL
TO DIGITAL1
89 FM CTL BLUE
TO INPUT
138 D GND
137 A GND
TO INPUT
136 SW 5.1(D)
TO DIGITAL1
90 FM CTL RED
TO DIGITAL1
71 MRSTW
70 MWE
69 MSWCK
TO DIGITAL1
72 MD7
73 MD6
74 MD5
75 MD4
76 MD3
77 MD2
78 MD1
79 MD0
L2505 42U
C2501 47/6.3V
C2502 0.1
R2571 3300
IC2501 TC74LCX541F (3 STATE BUFFER)
C2503 0.1
IC2502 TC74LCX541F (3 STATE BUFFER)
L2507 42U
C2510 47/6.3V
L2510 42U
C2511 47/6.3V
C2515 0.1
IC2507 UPD42280GU5 (2MBIT FIELD MEMORY)
C2516 0.1
L2511 42U
C2512 47/6.3V
C2517 0.1
IC2510 UPD42280GU5 (2MBIT FIELD MEMORY)
C2518 0.1
FL2501 NFM51R10P107
FL2502 NFM51R10P107
FL2503 NFM51R10P107
C2561 0.1
C2562 0.1
D2501 MA111
IC2513 UPC29M33T-E1 (3.3V REG)
C2565 0.1
C2566 0.1
C2569 47/6.3V
C2561 0.1
C2570 0.1
IC2515 UPD97226-001 (GATE ARRAY)
VIDEO INTERLACE/NONINTERLACE CONVERTER
FREQUENCY CONVERSION
XGA THIN
XGA THICK
OSD SW
RED
VDD
VSTR
HSTR
RCLK
CLR
GND
FI1
VSTW
HSTW
WCLK
GND
VDD
FRD0
FRD1
FRD2
FRD3
FRD4
FRD5
FRD6
FRD7
FRD8
FRD9
FRD10
FRD11
FRD12
FRD13
FRD14
FRD15
FWD0
FWD1
FWD2
FWD3
FWD4
FWD5
FWD6
FWD7
FWD8
FWD9
FWD10
FWD11
FWD12
FWD13
RSTR
FRE
SRCK
OSDB
OSDH4
OSDH8
GOSD3
GOSD2
GOSD1
GOSD0
GOSD
DA7
DA6
DA5
DA4
DA3
DA2
DA1
DA0
DO0
DO1
DO2
DO3
RE
OE
RRST
RCK
DO4
DO5
DO6
DO7
DI0
DI1
DI2
DI3
WE
TEST
WRST
WCK
DI4
DI5
DI6
DI7


TO DIGITAL 1
TO DIGITAL 1
IC2503 TC74LCX541F
(3 STATE BUFFER)
TO DIGITAL 1
Y REF BOTTOM(B.R)
TO INPUT
SW 5V(A)
AD RED
TO DIGITAL 1
Y REF TOP(B.R)
IC2511
CXA3026Q
(8BIT 120MSPS FLASH A/D CONVERTER)
RED
L2513 22U
L2501 0
R2501 0
L2514 22U
TO INPUT
AD BLUE
L2502 0
FL2504 NFM51R10P107
FL2505 NFM51R10P107
FL2506 NFM51R10P107
R2539 47K
R2540 47K
R2538 47K


D2501
MA111
IC2513
UPC29M331 E1
(3.3V REG)
C2565
0.1
C2566
0.1
C2569
47/6.3V
C2570
0.1
VDD
VSTR
HSTR
RCLK
CLR
GND
F11
VSTW
HSTW
WCLK
L2508
42U
C2509
47/6.3V
L2506
42U
C2505
47/6.3V
C2506
0.1
R2572
3300
IC2504 TC74LCX541F
(3 STATE BUFFER)
C2507
0.1
IC2505 TC74LCX541F
(3 STATE BUFFER)
L2509
42U
C2513
47/6.3V
C2529
0.1
IC2508 UPD42280GU25
(2MBIT FIELD MEMORY)
DO0
DO1
DO2
DO3
RE
GND
OE
RRST
RCK
VDD
DO4
DO5
DO6
DO7
DI0
DI1
DI2
DI3
WE
TEST
WRST
WCK
DI4
DI5
DI6
DI7
C2530
0.1
L2512
42U
C2514
47/6.3V
C2531
0.1
IC2509 UPD42280GU25
(2MBIT FIELD MEMORY)
C2532
0.1
FL2507
NFM61R10P107
FL2508
NFM61R10P107
FL2509
NFM61R10P107
C2557
0.1
C2563
0.1
RSTR
FRE
SRCK
OSDA
OSDB
OSDH4
OSDH8
GOSD3
GOSD2
GOSD1
GOSD0
GOSD
DA7
DA6
DA5
DA4
DA3
DA2
DA1
DA0
D2502
MA111
IC2514
UPC29M331-E1
(3.3V REG)
C2567
0.1
C2568
0.1
C2572
47/6.3V
C2573
0.1
FRO0
FRO1
FRO2
FRO3
FRO4
FRO5
FRO6
FRO7
FRO8
FRO9
FRO10
FRO11
FRO12
FRO13
FRO14
FRO15
C2547 0.1
FWO0
FWO1
FWO2
FWO3
FWO4
FWO5
FWO6
FWO7
FWO8
FWO9
FWO10
FWO11
FWO12
FWO13
FWO14
FWO15
IC2516
UPD97226-001
(GATE ARRAY)
VIDEO INTERLACE/NONINTERLACE CONVERTER
FREQUENCY CONVERSION
XGA THIN
XGA THICK
OSD SW
BLUE


IC2506 IC74LCX541F
(3 STATE BUFFER)
C2508 0.1
IC2512
CXA3026Q
(8BIT 120MSPS
FLASH A/D
CONVERTER)
BLUE
DVEE3
VRB
AGND
VRM1
AVCC
VIN
VRM2
AVCC
VRM3
AGND
VRT
DGND3
CLK/E
CLKN/E
CLK/T
NC
NC
NC
DVCC2
DGND2
P200
P201
P202
P203
P204
P205
P206
P207
DGND1
DVCC1
DVCC2
DGND2
P100
P101
P102
P103
P104
P105
P106
P107
DGND2
DVCC2
CLKOUT
INV
SELECT
RESETN/T
RESET/E
RESETN/E
C2549 0.1
C2533 0.1
C2534 47/6.3V
C2535 0.1
C2537 0.1
C2538 0.1
C2540 100/6.3V
C2536 0.1
C2539 0.1
C2541 47/6.3V
C2542 0.1
C2559 0.1
C2543 100/6.3V
C2550 0.1
C2560 0.1
L2515 22U
L2516 22U
DI10
DI11
DI12
DI13
WE
GND
TEST
WRST
WCK
VDD
DI14
DI15
DI16
DI17
C2532 0.1
FWD7
GND
FWD8
FWD9
FWD10
FWD11
FWD12
FWD13
FWD14
FWD15
FWCONT
VDD
C2548 0.1
GND
GND
RSTW
FWE
SWCK
AD17
AD16
AD15
AD14
AD13
AD12
AD11
AD10
VDD
GND
DLA1
SCS
SCLK
SDATA
GND
GND
VDD
GND
C2574 0.1
C2576 0.1
FL2510 NFM61R10P107
FL2511 NFM61R10P107
FL2512 NFM61R10P107
C2558 47/6.3V
R2545 47K
R2546 47K
R2544 47K
C2564 0.1
SCS
SCLK
SDATA
COLOR 1
GND
GND
VDD
GND
C2571 0.1
C2575 0.1

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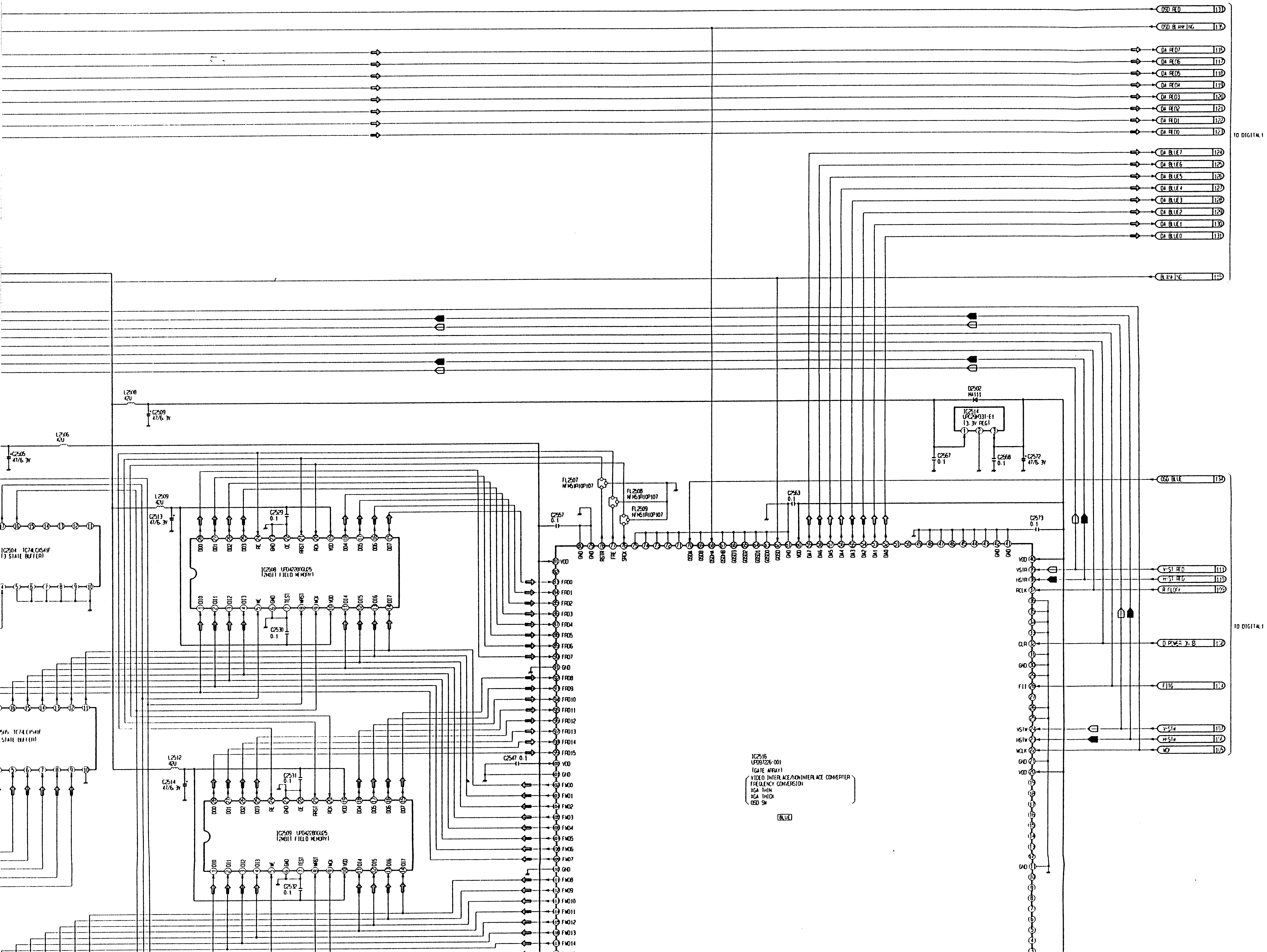
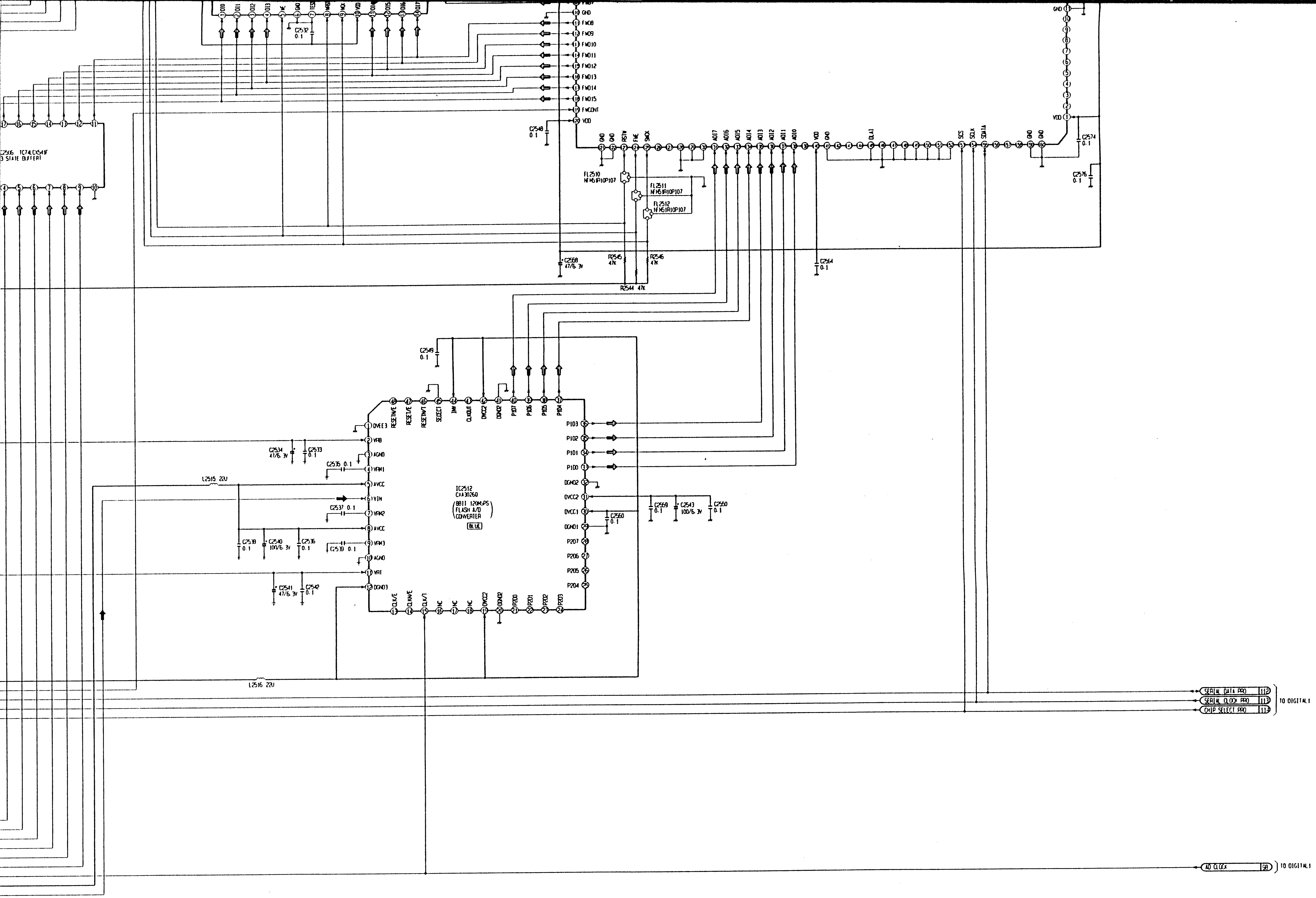

OSD RED 133
OSD BLANKING 13?
DA RED7 116
DA RED6 117
DA RED5 118
DA RED4 119
DA RED3 120
DA RED2 121
DA RED1 122
DA RED0 123
TO DIGITAL 1
DA BLUE7 124
DA BLUE6 125
DA BLUE5 126
DA BLUE4 127
DA BLUE3 128
DA BLUE2 129
DA BLUE1 130
DA BLUE0 131
BLANKING 11?
L2508 42U
C2509 47/6.3V
L2506 42U
C2505 47/6.3V
D2502 MA111
IC2514 UPC29M33T-E1 (3.3V REG)
C2567 0.1
C2568 0.1
C2572 47/6.3V
OSD BLUE 134
FL2507 NFM61R10P107
FL2508 NFM61R10P107
FL2509 NFM61R10P107
C2563 0.1
C2557 0.1
C2573 0.1
L2509 42U
C2513 47/6.3V
C2529 0.1
C2530 0.1
IC2504 IC74LCX541F (3 STATE BUFFER)
IC2508 UPD42280GU25 (2MBIT FIELD MEMORY)
DO0 DO1 DO2 DO3 RE GND OE RRST RCK VDD DO4 DO5 DO6 DO7
DI0 DI1 DI2 DI3 WE GND TEST WRST WCK VDD DI4 DI5 DI6 DI7
GND GND RSTR FRE SRCK OSDA OSDB OSDHA OSDHB GOSD3 GOSD2 GOSD1 GOSD0 GOSD GND VDD DA7 DA6 DA5 DA4 DA3 DA2 DA1 DA0 GND GND
VDD VSTR HSTR RCLK CLR GND FII VSTW HSTW WCLK GND VDD GND
V-ST RED 111
H-ST RED 110
R CLOCK 109
D POWER 3.3 ...
FIIG
V-STW 107
H-STW 106
WCK 105
VDD FRO0 FRO1 FRO2 FRO3 FRO4 FRO5 FRO6 FRO7 GND FRO8 FRO9 FRO10 FRO11 FRO12 FRO13 FRO14 FRO15 VDD GND
FWO0 FWO1 FWO2 FWO3 FWO4 FWO5 FWO6 FWO7 GND FWO8 FWO9 FWO10 FWO11 FWO12 FWO13 FWO14
C2547 0.1
IC2516
UPD97226-001
(GATE ARRAY)
VIDEO INTERLACE/NONINTERLACE CONVERTER
FREQUENCY CONVERSION
XGA THIN
XGA THICK
OSD SW
BLUE
L2512 42U
C2514 47/6.3V
C2531 0.1
C2532 0.1
IC2505 IC74LCX541F (3 STATE BUFFER)
IC2509 UPD42280GU25 (2MBIT FIELD MEMORY)


D10
D11
D12
D13
WE
GND
TES
WRS
WCK
VDD
D14
D15
D16
D17
C2532 0.1
GND
FWD8
FWD9
FWD10
FWD11
FWD12
FWD13
FWD14
FWD15
FWCONT
VDD
C2548 0.1
IC2506 IC74LCX541F
(3 STATE BUFFER)
GND
GND
RSTW
FWE
SWCK
AD17
AD16
AD15
AD14
AD13
AD12
AD11
AD10
VDD
GND
DLA1
SCS
SCLK
SDATA
GND
GND
GND
VDD
C2574 0.1
C2576 0.1
FL2510 NFM61R10P107
FL2511 NFM61R10P107
FL2512 NFM61R10P107
C2568 47/6.3V
R2545 47K
R2546 47K
R2544 47K
C2564 0.1
C2549 0.1
RESETN/E
RESET/E
RESETN/T
SEDECT
INV
CLKOUT
DVCC2
DGND2
P107
P106
P105
P104
DVEE3
VRB
AGND
VRM1
AVCC
VIN
VRM2
AVCC
VRM3
AGND
VRT
DGND3
P103
P102
P101
P100
DGND2
DVCC2
DVCC1
DGND1
P207
P206
P205
P204
CLK/E
CLKN/E
CLK/T
NC
NC
NC
DVCC2
DGND2
P200
P201
P202
P203
IC2512
CXA3026Q
(8BIT 120MSPS
FLASH A/D
CONVERTER)
BLUE
C2534 47/6.3V
C2533 0.1
C2535 0.1
L2515 22U
C2537 0.1
C2538 0.1
C2540 100/6.3V
C2536 0.1
C2539 0.1
C2541 47/6.3V
C2542 0.1
C2569 0.1
C2543 100/6.3V
C2550 0.1
C2560 0.1
L2516 22U
SERIAL DATA PRO 112
SERIAL CLOCK PRO 113
CHIP SELECT PRO 114
TO DIGITAL1
AD CLOCK 98
TO DIGITAL1

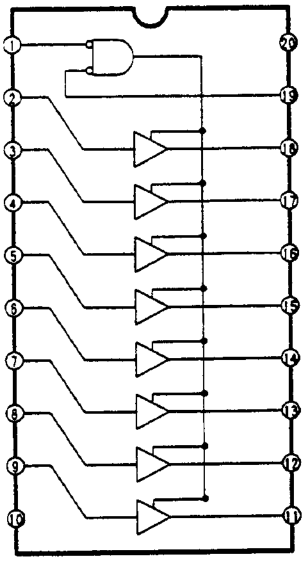
opy

I/O CHART FOR GATE ARRAY
IC2515, IC2516 (UPD97226-001)

PIN NO.	PIN NO.	I/O	FUNCTION	PIN NO.	PIN NO.	I/O	FUNCTION
1	VDD	—	+3.3V	57	DA5	O	RGB Signal Data Output 5
2	VSTA	O	(Not used)	58	DA6	O	RGB Signal Data Output 6
3	ADJ7	O	(Not used)	59	DA7	O	RGB Signal Data Output 7
4	ADJ6	O	(Not used)	60	VDD	—	+3.3V
5	ADJ5	O	(Not used)	61	GND	—	Grounding Terminal
6	ADJ4	O	(Not used)	62	GOSD	I	Graphical OSD Control Signal Input
7	ADJ3	O	(Not used)	63	GOSD0	I	(Not used)
8	ADJ2	O	(Not used)	64	GOSD1	I	(Not used)
9	ADJ1	O	(Not used)	65	GOSD2	I	(Not used)
10	ADJ0	O	(Not used)	66	GOSD3	I	(Not used)
11	GND	—	Grounding Terminal	67	OSDMB	I	(Not used)
12	PADJ7	O	(Not used)	68	OSDMA	I	OSD Mask Control Signal Input A
13	PADJ6	O	(Not used)	69	OSDB	I	(Not used)
14	PADJ5	O	(Not used)	70	OSDA	I	OSD Control Signal Input A
15	PADJ4	O	(Not used)	71	BUNRI	I	(Not used)
16	PADJ3	O	(Not used)	72	TEST0	I	(Not used)
17	PADJ2	O	(Not used)	73	TEST1	I	(Not used)
18	PADJ1	O	(Not used)	74	TMC1	I	(Not used)
19	PADJ0	O	(Not used)	75	TMC2	I	(Not used)
20	VDD	—	+3.3V	76	SRCK	O	Read Clock Signal Output
21	GND	—	Grounding Terminal	77	FRE	O	Read Enable Output
22	WCLK	I	Write Dot Clock Signal Input	78	RSTR	O	Read Address Reset Output
23	HSTW	I	Write H-Start Pulse Input	79	GND	—	Grounding Terminal
24	VSTW	I	Write V-Start Pulse Input	80	GND	—	Grounding Terminal
25	TEST	I	(Not used)	81	VDD	—	+3.3V
26	TEST	I	(Not used)	82	N.C	—	(Not used)
27	FIO	O	(Not used)	83	FRD0	I	Field Memory Data Input 0
28	FI	I	Field in Deluxe Signal Input	84	FRD1	I	Field Memory Data Input 1
29	TEST	I	(Not used)	85	FRD2	I	Field Memory Data Input 2
30	GND	—	Grounding Terminal	86	FRD3	I	Field Memory Data Input 3
31	TEST	I	(Not used)	87	FRD4	I	Field Memory Data Input 4
32	CLR	I	Reset : LOW	88	FRD5	I	Field Memory Data Input 5
33	TEST	I	(Not used)	89	FRD6	I	Field Memory Data Input 6
34	TEST	I	(Not used)	90	FRD7	I	Field Memory Data Input 7
35	TEST	I	(Not used)	91	GND	—	Grounding Terminal
36	TEST	I	(Not used)	92	FRD8	I	Field Memory Data Input 8
37	RCLK	I	Read Dot Clock Signal Input	93	FRD9	I	Field Memory Data Input 9
38	HSTR	I	Read H-Start Pulse Input	94	FRD10	I	Field Memory Data Input 10
39	VSTR	I	Read V-Start Pulse Input	95	FRD11	I	Field Memory Data Input 11
40	VDD	—	+3.3V	96	FRD12	I	Field Memory Data Input 12
41	GND	—	Grounding Terminal	97	FRD13	I	Field Memory Data Input 13
42	GND	—	Grounding Terminal	98	FRD14	I	Field Memory Data Input 14
43	TEST	I	(Not used)	99	FRD15	I	Field Memory Data Input 15
44	TEST	I	(Not used)	100	VDD	—	+3.3V
45	TEST	I	(Not used)	101	GND	—	Grounding Terminal
46	TEST	I	(Not used)	102	FWD0	O	Field Memory Data Output 0
47	TEST	I	(Not used)	103	FWD1	O	Field Memory Data Output 1
48	TEST	I	(Not used)	104	FWD2	O	Field Memory Data Output 2
49	TEST	I	(Not used)	105	FWD3	O	Field Memory Data Output 3
50	DACKB	O	(Not used)	106	FWD4	O	Field Memory Data Output 4
51	DACK	O	(Not used)	107	FWD5	O	Field Memory Data Output 5
52	DA0	O	RGB Signal Data Output 0	108	FWD6	O	Field Memory Data Output 6
53	DA1	O	RGB Signal Data Output 1	109	FWD7	O	Field Memory Data Output 7
54	DA2	O	RGB Signal Data Output 2	110	GND	—	Grounding Terminal
55	DA3	O	RGB Signal Data Output 3	111	FWD8	O	Field Memory Data Output 8
56	DA4	O	RGB Signal Data Output 4	112	FWD9	O	Field Memory Data Output 9

PIN NO.	PIN NO.	I/O	FUNCTION	PIN NO.	PIN NO.	I/O	FUNCTION
113	FWD10	O	Field Memory Data Output 10	137	AD1	I	RGB Signal Data Input 1
114	FWD11	O	Field Memory Data Output 11	138	AD0	I	RGB Signal Data Input 0
115	FWD12	O	Field Memory Data Output 12	139	CLP	O	(Not used)
116	FWD13	O	Field Memory Data Output 13	140	VDD	—	+3.3V
117	FWD14	O	Field Memory Data Output 14	141	GND	—	Grounding Terminal
118	FWD15	O	Field Memory Data Output 15	142	ADCK	O	(Not used)
119	FMWC	I	Field Memory Write Control	143	ADCKB	O	(Not used)
120	VDD	—	+3.3V	144	DLA	O	(Not used)
121	GND	—	Grounding Terminal	145	DLAI	I	Auto Position External Detection Signal
122	GND	—	Grounding Terminal	146	TEST	I	(Not used)
123	RSTW	O	Field Memory Write Address Reset Signal	147	TEST	I	(Not used)
124	FWE	O	Field Memory Write Enable Signal	148	TEST	I	(Not used)
125	SWCK	O	Field Memory Write Clock Signal	149	TEST	I	(Not used)
126	N.C	—	(Not used)	150	TEST	I	(Not used)
127	DLAEXT	I	(Not used)	151	TEST	I	(Not used)
128	TEST	I	(Not used)	152	TEST	I	(Not used)
129	TEST	I	(Not used)	153	SCS	I	Serial Chip Select Signal
130	TEST	I	(Not used)	154	SCLK	I	Serial Clock Signal
131	AD7	I	RGB Signal Data Input 7	155	SDATA	I	Serial Data Signal
132	AD6	I	RGB Signal Data Input 6	156	COLOR1	I	Color Set Up 1
133	AD5	I	RGB Signal Data Input 5	157	COLOR0	I	(Not used)
134	AD4	I	RGB Signal Data Input 4	158	HSTA	O	(Not used)
135	AD3	I	RGB Signal Data Input 3	159	GND	—	Grounding Terminal
136	AD2	I	RGB Signal Data Input 2	160	GND	—	Grounding Terminal

IC2501, IC2502, IC2503,
IC2504, IC2505, IC2506
(TC74LCX541F)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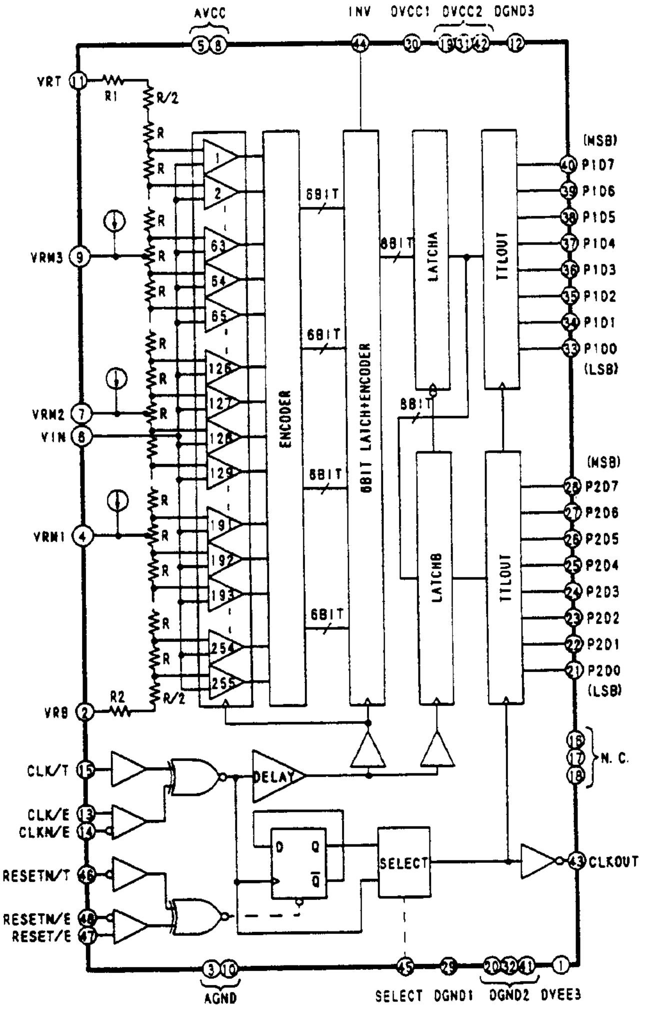
IC2511, IC2512
(CXA3026Q)


AVCC
INV
DVCC1
DVCC2
DGND3
5
8
44
30
19
31
42
12
VRT
11
R1
R/2
R
VRM3
9
VRM2
7
VIN
6
VRM1
4
VRB
2
R2
1
2
63
64
65
126
127
128
129
191
192
193
254
255
ENCODER
6BIT
8BIT LATCH+ENCODER
8BIT
LATCHA
LATCHB
TTLOUT
(MSB)
40 P1D7
39 P1D6
38 P1D5
37 P1D4
36 P1D3
35 P1D2
34 P1D1
33 P1D0
(LSB)
(MSB)
28 P2D7
27 P2D6
26 P2D5
25 P2D4
24 P2D3
23 P2D2
22 P2D1
21 P2D0
(LSB)
16
17
18
N. C.
CLK/T 15
CLK/E 13
CLKN/E 14
RESETN/T 46
RESETN/E 48
RESET/E 47
DELAY
D
Q
Q̄
SELECT
43 CLKOUT
3
10
AGND
45
29
20
32
41
1
SELECT
DGND1
DGND2
DVEE3

VOLTAGE CHART OF DIGITAL 2 SCHEMATIC DIAGRAM

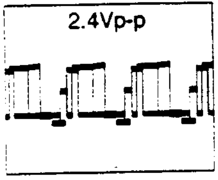
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
IC2501		15	1.2	9	0	16	2.5	15	2.1	43	1.7	2	0	51	1.3	108	0	4	0.6	61	0.3	118	1.0
1	3.3	16	1.0	10	0	17	0.8	16	2.1	44	5.0	3	3.3	52	0.8	109	1.1	5	0.4	62	1.0	119	0
2	0	17	0	11	1.8	18	0.5	17	0.7	45	0	**IC2514**		53	0.8	110	0	6	1.5	63	0	120	0
3	0	18	1.1	12	1.8	19	5.1	18	0.4	46	3.7	1	5.1	54	1.0	111	1.4	7	1.7	64	0	121	0
4	0	19	3.3	13	1.2	20	1.2	19	0	47	3.7	2	0	55	1.0	112	1.6	8	1.0	65	0	122	0
5	0	20	3.3	14	1.8	21	3.4	20	1.2	48	4.5	3	3.4	56	0.4	113	0.8	9	1.9	66	0	123	3.4
6	0	**IC2504**		15	1.6	22	0	21	3.3	**IC2512**		**IC2515**		57	0.7	114	1.5	10	1.8	67	0	124	0.8
7	0	1	3.1	16	0.5	23	0	22	0	1	0	1	3.3	58	0	115	1.3	11	0	68	0	125	1.5
8	0	2	0	17	0.6	24	2.4	23	0	2	1.9	2	0	59	1.1	116	1.0	12	0	69	0	126	0
9	0	3	0	18	1.0	25	3.5	24	0	3	0	3	1.1	60	3.3	117	0	13	3.4	70	0	127	0
10	0	4	0	19	3.4	26	0.2	25	3.3	4	2.3	4	0	61	0	118	1.1	14	3.4	71	0	128	0
11	0.2	5	0	20	3.4	27	0.3	26	0.5	5	4.7	5	1.1	62	1.0	119	0	15	3.4	72	0	129	0
12	0.1	6	0	**IC2507**		28	0.5	27	0	6	2.4	6	1.2	63	0	120	0	16	3.4	73	0	130	0
13	0.1	7	0	1	1.1	**IC2509**		28	0.6	7	2.8	7	1.5	64	0	121	0	17	0	74	0	131	1.3
14	0.1	8	0	2	0	1	1.0	**IC2511**		8	4.7	8	0.8	65	0	122	0	18	3.4	75	0	132	0.9
15	-0.3	9	0	3	0	2	0.7	1	0	9	3.2	9	1.7	66	0	123	3.3	19	0	76	1.2	133	0.6
16	1.5	10	0	4	1.3	3	0.4	2	1.9	10	0	10	1.4	67	0	124	0.9	20	3.4	77	2.4	134	1.8
17	0.9	11	0.2	5	0.9	4	1.6	3	0	11	3.7	11	0	68	0	125	1.5	21	0	78	3.4	135	1.9
18	3.3	12	0.1	6	0	5	0.9	4	2.3	12	5.0	12	0	69	0	126	0	22	2.7	79	0	136	1.4
19	3.3	13	0.1	7	0	6	0	5	4.7	13	4.5	13	3.3	70	0	127	0	23	0.2	80	0	137	2.3
20	3.3	14	0.1	8	3.3	7	0	6	2.3	14	3.8	14	3.3	71	0	128	0	24	0.1	81	3.4	138	2.0
IC2502		15	-0.3	9	1.5	8	3.4	7	2.8	15	2.3	15	3.3	72	0	129	0	25	0	82	0	139	0.3
1	3.3	16	1.5	10	5.1	9	1.5	8	4.7	16	0	16	3.3	73	0	130	0	26	0	83	2.1	140	3.4
2	0	17	0.9	11	1.5	10	5.1	9	3.2	17	0	17	0	74	0	131	1.3	27	3.4	84	2.5	141	0
3	0	18	3.4	12	0.9	11	1.7	10	0	18	0	18	3.3	75	0	132	0.3	28	3.5	85	0.8	142	1.2
4	0	19	3.4	13	1.6	12	1.1	11	3.7	19	5.0	19	0	76	1.2	133	1.3	29	0	86	0.5	143	1.3
5	0	20	3.4	14	1.5	13	1.9	12	4.9	20	0	20	3.3	77	2.3	134	1.5	30	0	87	3.5	144	1.1
6	0	**IC2505**		15	2.1	14	1.9	13	4.4	21	2.0	21	0	78	3.3	135	1.8	31	0	88	0.2	145	0
7	0	1	3.4	16	1.9	15	2.1	14	3.7	22	2.1	22	2.2	79	0	136	1.0	32	0	89	0.3	146	0
8	0	2	0	17	0.7	16	2.4	15	2.3	23	1.4	23	0.2	80	0	137	1.9	33	0	90	0.5	147	0
9	0	3	0	18	0.5	17	0.9	16	0.1	24	2.0	24	0.1	81	3.3	138	1.6	34	0	91	0	148	0
10	0	4	0	19	5.1	18	0.5	17	0.1	25	1.8	25	0	82	0	139	0.3	35	0	92	2.1	149	0
11	1.5	5	0	20	1.2	19	5.1	18	0	26	0.7	26	0	83	2.1	140	3.3	36	0	93	2.5	150	0
12	1.5	6	0	21	3.3	20	1.2	19	5.0	27	0.9	27	3.3	84	2.1	141	0	37	1.3	94	0.9	151	0
13	1.0	7	0	22	0	21	3.4	20	0	28	1.3	28	3.5	85	0.7	142	1.2	38	0.5	95	0.5	152	0
14	1.4	8	0	23	0	22	0	21	1.7	29	0	29	0	86	0.5	143	1.3	39	0	96	3.5	153	4.5
15	1.2	9	0	24	2.3	23	0	22	2.0	30	5.0	30	0	87	3.4	144	1.1	40	3.4	97	0.2	154	4.5
16	1.0	10	0	25	3.4	24	2.4	23	1.1	31	5.0	31	0	88	0.5	145	0	41	0	98	0.3	155	2.4
17	0	11	1.8	26	0.5	25	3.5	24	2.0	32	0	32	5.1	89	0	146	0	42	0	99	0.5	156	3.4
18	1.1	12	1.7	27	0	26	0.2	25	1.5	33	1.9	33	0	90	0.6	147	0	43	0	100	3.4	157	3.4
19	3.3	13	1.3	28	0.6	27	0.3	26	1.3	34	2.0	34	0	91	0	148	0	44	0	101	0	158	0
20	3.3	14	1.9	**IC2508**		28	0.5	27	0.3	35	1.4	35	0	92	2.1	149	0	45	0	102	1.9	159	0
IC2503		15	1.6	1	1.0	**IC2510**		28	1.3	36	2.0	36	0	93	2.1	150	0	46	0	103	2.1	160	0
1	3.3	16	0.6	2	0.7	1	1.1	29	0	37	1.8	37	1.3	94	0.7	151	0	47	0	104	1.2		
2	0	17	0.5	3	0.4	2	0	30	5.0	38	0.7	38	0.5	95	0.4	152	0	48	0	105	1.5		
3	0	18	1.0	4	1.6	3	1.0	31	5.0	39	0.8	39	0	96	0	153	4.5	49	0	106	1.5		
4	0	19	3.4	5	0.5	4	1.3	32	0	40	1.3	40	3.3	97	0.5	154	4.5	50	1.6	107	0.4		
5	0	20	3.4	5	0	5	0.9	33	1.6	41	0	41	0	98	0	155	2.4	51	1.3	108	0.7		
6	0	**IC2506**		7	0	6	0	34	2.0	42	5.0	42	0	99	0.6	156	0	52	1.1	109	1.0		
7	0	1	3.4	8	3.4	7	0	35	1.0	43	1.6	43	0	100	3.3	157	3.3	53	1.3	110	0		
8	0	2	0	9	1.5	8	3.3	36	1.9	44	5.0	44	0	101	0	158	0	54	1.2	111	1.8		
9	0	3	0	10	5.1	9	1.5	37	1.5	45	0	45	0	102	1.5	159	0	55	1.1	112	2.1		
10	0	4	0	11	1.7	10	5.1	38	1.3	46	3.7	46	0	103	1.7	160	0	56	1.3	113	1.2		
11	1.5	5	0	12	1.1	11	1.5	39	0.3	47	3.8	47	0	104	0.9	**IC2516**		57	0.8	114	1.7		
12	1.6	6	0	13	2.0	12	0.9	40	1.3	48	4.5	48	0	105	1.5	1	3.4	58	0.3	115	1.5		
13	1.0	7	0	14	1.9	13	1.7	41	0	**IC2513**		49	0	106	1.3	2	0	59	0.9	116	0.4		
14	1.4	8	0	15	2.1	14	1.5	42	5.0	1	5.1	50	1.6	107	1.0	3	1.1	60	3.4	117	0.7		

VOLTAGE CHART OF INPUT SCHEMATIC DIAGRAM

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
IC1901		10	0	**IC3002**		28	3.9	**Q1901**		**Q3002**		**P1901**		6	0	11	15.2	7	0	**TP1901**	11.8		
1	15.9	11	1.7	1	0	29	11.5	S	5.0	E	2.7	1	1.1	7	0	12	0	8	5.0	**TP1902**	5.0		
2	5.3	12	0	2	11.5	30	2.3	G	5.2	C	0	2	5.1	8	0	13	0	9	4.1	**TP1903**	5.2		
3	15.2	13	1.7	3	2.6	31	0	D	11.6	B	2.1	3	0	**P1906**		14	0	10	4.4	**TP1904**	15.2		
4	1.3	14	0	4	2.9	32	5.3	**Q1902**		**Q3003**		**P1902**		1	11.9	15	0	11	0	**TP1905**	15.2		
5	0	15	0	5	0	33	3.9	S	5.2	E	2.7	1	4.7	2	11.9	16	0	12	0	**TP1906**	14.1		
IC1902		16	1.7	6	0	34	11.5	G	5.2	C	0	2	1.5	3	0	17	5.1	13	0	**TP1907**	0		
1	15.9	17	0.5	7	11.5	35	2.4	D	11.6	B	2.1	3	4.6	4	0	18	5.0	14	1.4	**TP1908**	15.2		
2	5.4	18	0	8	2.5	36	5.3	**Q1903**		**Q3004**		4	3.0	5	0.1	19	0	15	0	**TP3001**	3.6		
3	14.1	19	4.8	9	2.8			E	11.9	E	4.4	5	0	6	8.7	20	4.9	16	0.1	**TP3002**	3.6		
4	1.3	20	0	10	0			C	11.8	C	0	**P1903**		7	0	21	4.9	17	5.0	**TP3003**	2.3		
5	0	21	0.1	11	0			B	11.1	B	3.8	1	8.7	8	0	22	5.1	18	0	**TP3004**	3.7		
IC1903		22	0.5	12	11.5			**Q1904**		**Q3005**		2	0	**P1907**		23	4.9	19	5.1	**TP3005**	4.1		
1	15.9	23	0	13	2.5			E	0	E	1.2	3	0.2	1	5.2	24	4.9	20	5.1	**TP3006**	2.4		
2	5.3	24	4.9	14	2.8			C	0	C	5.0	**P1904**		2	5.2	25	0	21	0	**TP3007**	2.3		
3	15.2	25	1.2	15	0			B	0.7	B	1.8	1	14.1	3	11.9	26	4.9	22	5.2	**TP3008**	2.3		
4	1.3	26	0	16	0			**Q1905**		**Q3006**		2	15.2	4	0	27	0	23	5.1	**TP3009**	1.8		
5	0	27	1.9	17	2.3			E	11.9	E	3.8	3	11.8	**P3001**		28	4.9	24	0	**TP3011**	3.6		
IC3001		28	4.9	18	0.5			C	11.9	C	5.0	4	5.0	1	0	29	0	25	11.8	**TP3012**	3.7		
1	4.9	29	0	19	2.2			B	11.1	B	4.4	5	0	2	0	30	4.9	26	0				
2	1.8	30	1.9	20	0			**Q1906**		**Q3007**		6	0	3	0	31	11.8	27	0				
3	4.9	31	4.9	21	0			E	0	E	1.9	7	0	4	5.1	**P3002**		28	0				
4	0	32	0	22	5.3			C	0	C	0	**P1905**		5	5.1	1	5.0	29	2.8				
5	1.8	33	0	23	3.9			B	4.3	B	1.2	1	0	6	5.1	2	3.6	30	2.3				
6	4.9	34	0	24	11.5			**Q3001**				2	15.9	7	5.1	3	0	31	1.8				
7	1.8	35	1.9	25	2.3			E	2.8			3	5.2	8	5.1	4	3.6						
8	0.2	36	4.9	26	0			C	0			4	5.2	9	11.8	5	0						
9	0			27	5.3			B	2.1			5	5.2	10	4.1	6	3.7						

WAVEFORM OF INPUT SCHEMATIC DIAGRAM

IN1



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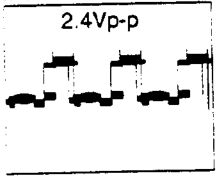

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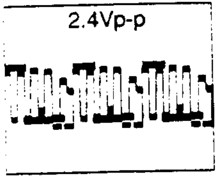

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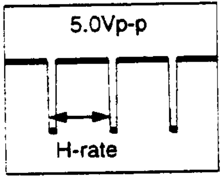

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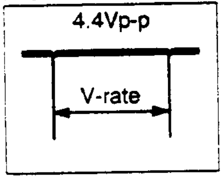

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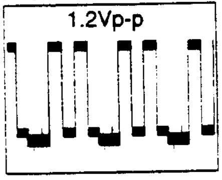

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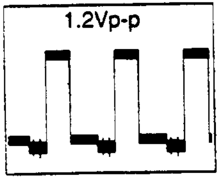
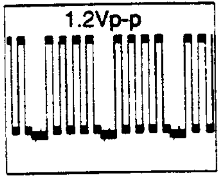
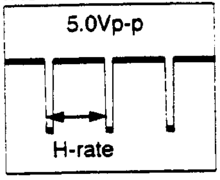


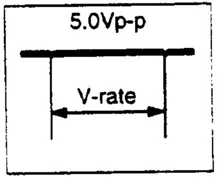
IN8



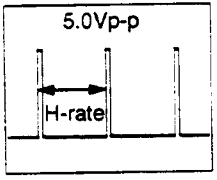
IN9



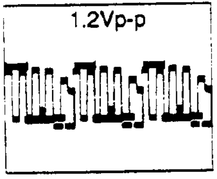
IN10



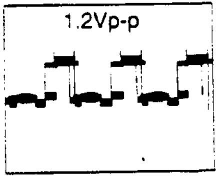
IN11



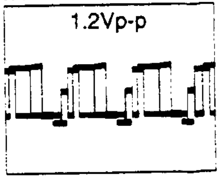
IN12



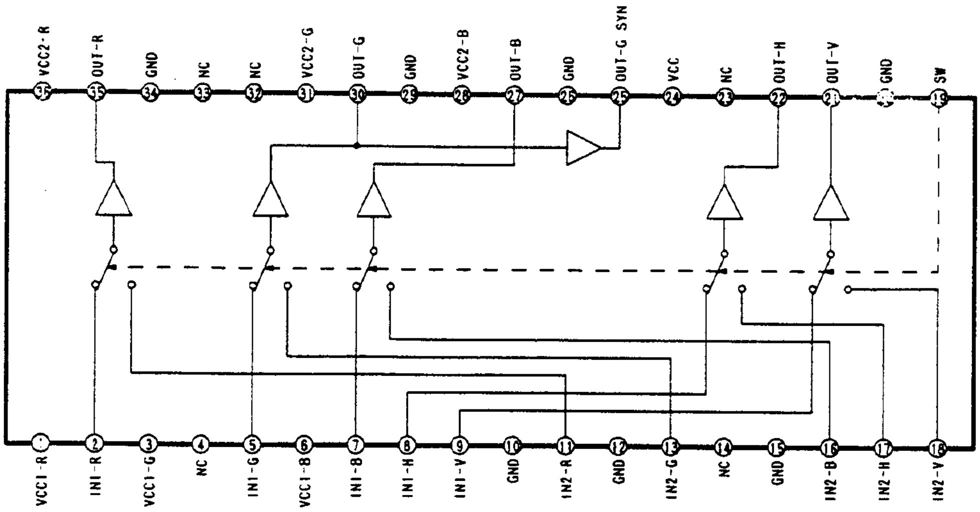
IN13



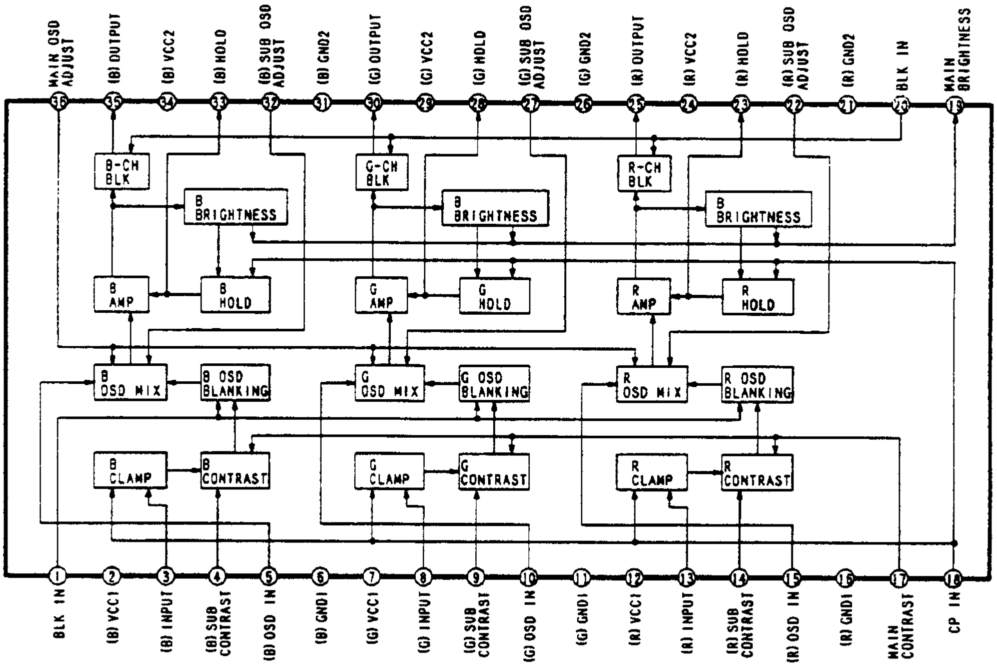
IN14



IC3001
(M52348FP)


36 VCC2-R
35 OUT-R
34 GND
33 NC
32 NC
31 VCC2-G
30 OUT-G
29 GND
28 VCC2-B
27 OUT-B
26 GND
25 OUT-G SYN
24 VCC
23 NC
22 OUT-H
21 OUT-V
20 GND
19 SW
1 VCC1-R
2 IN1-R
3 VCC1-G
4 NC
5 IN1-G
6 VCC1-B
7 IN1-B
8 IN1-H
9 IN1-V
10 GND
11 IN2-R
12 GND
13 IN2-G
14 NC
15 GND
16 IN2-B
17 IN2-H
18 IN2-V

IC3002
(M52722SP)

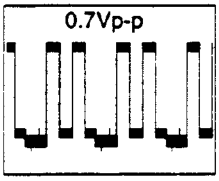

36 MAIN OSD ADJUST
35 (B) OUTPUT
34 (B) VCC2
33 (B) HOLD
32 (B) SUB OSD ADJUST
31 (B) GND2
30 (G) OUTPUT
29 (G) VCC2
28 (G) HOLD
27 (G) SUB OSD ADJUST
26 (G) GND2
25 (R) OUTPUT
24 (R) VCC2
23 (R) HOLD
22 (R) SUB OSD ADJUST
21 (R) GND2
20 BLK IN
19 MAIN BRIGHTNESS
B-CH BLK
B BRIGHTNESS
B AMP
B HOLD
B OSD MIX
B OSD BLANKING
B CLAMP
B CONTRAST
G-CH BLK
B BRIGHTNESS
G AMP
G HOLD
G OSD MIX
G OSD BLANKING
G CLAMP
G CONTRAST
R-CH BLK
B BRIGHTNESS
R AMP
R HOLD
R OSD MIX
R OSD BLANKING
R CLAMP
R CONTRAST
1 BLK IN
2 (B) VCC1
3 (B) INPUT
4 (B) SUB CONTRAST
5 (B) OSD IN
6 (B) GND1
7 (G) VCC1
8 (G) INPUT
9 (G) SUB CONTRAST
10 (G) OSD IN
11 (G) GND1
12 (R) VCC1
13 (R) INPUT
14 (R) SUB CONTRAST
15 (R) OSD IN
16 (R) GND1
17 MAIN CONTRAST
18 CP IN

VOLTAGE CHART OF JACK SCHEMATIC DIAGRAM

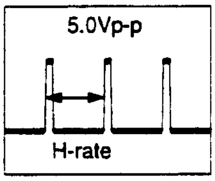
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
IC4001		**IC4004**		9	0	**IC4007**		**IC4008**		**IC4009**		**Q4002**		**Q4010**		**Q4016**		**Q4022**		**P4003**		24	5.1
1	1.8	1	5.3	10	0	1	0	1	0	1	10.1	E	4.9	E	0	E	0	E	1.8	1	11.8	25	5.1
2	0	2	0	11	5.1	2	0	2	1.4	2	4.4	C	11.7	C	−0.6	C	0	C	4.9	2	4.8	26	5.1
3	0	3	5.6	12	5.1	3	0	3	4.2	3	0	B	5.6	B	0	B	−0.7	B	2.4	3	0	27	5.1
4	0	4	5.6	13	5.1	4	2.8	4	1.4	4	2.6	**Q4003**		**Q4011**		**Q4017**		**Q4023**		4	4.9	28	5.1
5	5.1	5	11.8	14	0	5	0	5	4.9	5	6.3	E	4.8	E	0	E	0	E	1.8	5	0	29	0
6	1.8	**IC4005**		15	0	6	2.3	6	1.4	6	6.4	C	11.7	C	5.0	C	4.9	C	4.9	6	4.9	30	0
7	1.8	1	1.8	16	0	7	2.5	7	0.2	7	0	B	5.6	B	0	B	0.2	B	2.3	7	0	31	0
8	4.9	2	0	17	0	8	2.3	8	1.4	8	6.5	**Q4006**		**Q4012**		**Q4018**		**Q4024**		8	4.9		
IC4002		3	0	18	0	9	2.5	9	4.2	9	14.9	E	2.5	E	1.8	E	0	E	1.8	9	4.9	**TP4001**	6.1
1	5.3	4	0	19	0	10	2.5	10	0	**IC4010**		C	0	C	4.9	C	4.9	C	4.9	10	5.1		
2	0	5	5.1	20	0	11	0.3	11	4.9	1	0	B	1.8	B	2.5	B	0.3	B	2.4	11	4.9		
3	5.6	6	1.8	21	9.9	12	0.2	12	3.5	2	0	**Q4007**		**Q4013**		**Q4019**		**Q4025**		12	4.9		
4	5.6	7	1.8	22	9.9	13	0.3	13	0.3	3	0	E	2.5	E	0	E	11.7	E	1.8	13	0		
5	11.8	8	4.9	23	−9.7	14	0.3	14	4.9	4	0	C	0	C	4.9	C	−0.8	C	4.9	14	5.0		
IC4003		**IC4006**		24	0	15	4.9	15	4.9	5	5.1	B	1.8	B	0.3	B	11.7	B	2.3	15	5.1		
1	5.3	1	9.9	25	0	16	4.9	16	3.5	6	5.1	**Q4008**		**Q4014**		**Q4020**				16	0		
2	0	2	5.1	26	5.1	17	0.3	17	4.9	7	4.9	E	0	E	0	E	0.1	**P4001**		17	0		
3	5.6	3	5.1	27	−9.7	18	0	18	4.9	8	5.1	C	0	C	4.9	C	−0.6	1	0	18	0		
4	5.6	4	0.1	28	−2.4	19	0	19	0			B	−0.6	B	0	B	0	2	0	19	0.2		
5	11.8	5	4.3	29	0	20	3.0	20	4.9	**Q4001**		**Q4009**		**Q4015**		**Q4021**		3	0	20	0		
		6	0	30	2.7					E	4.9	E	0	E	2.6	E	0	**P4002**		21	15.1		
		7	−0.1							C	11.7	C	0	C	0	C	4.9	1	6.1	22	4.1		
		8	5.1							B	5.6	B	−0.6	B	−0.8	B	0	2	0	23	11.7		

WAVEFORM OF JACK SCHEMATIC DIAGRAM

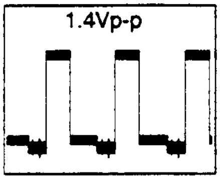
JA1



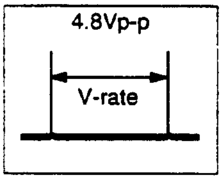
JA4



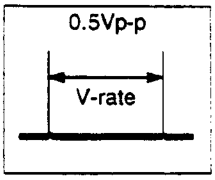
JA7



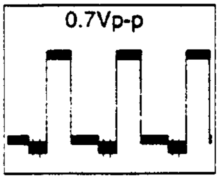
JA10



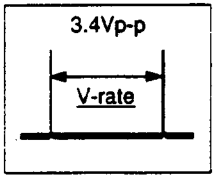
JA13



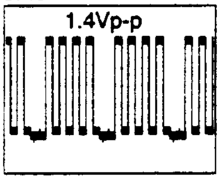
JA2



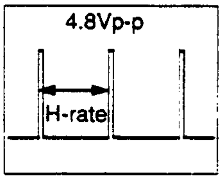
JA5



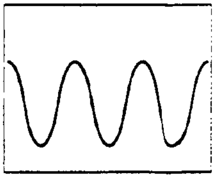
JA8



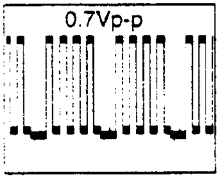
JA11



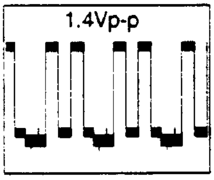
JA14



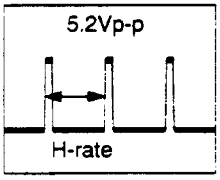
JA3



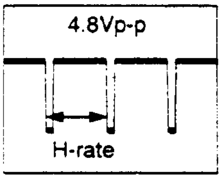
JA6



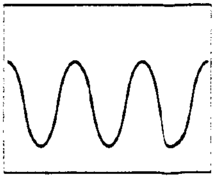
JA9



JA12

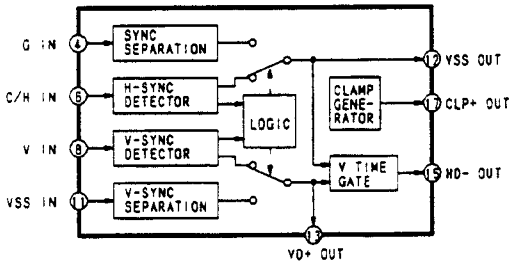


JA15



(Audio signal level will change according to input level.)

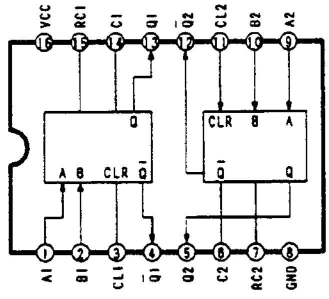
IC4007
(M52347FP)



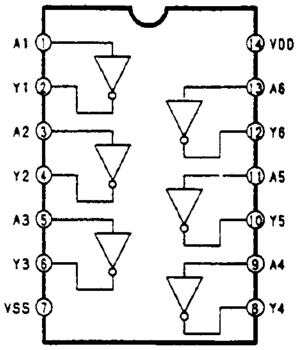
VOLTAGE CHART OF CARD SCHEMATIC DIAGRAM

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
IC6601		**IC6604**		11	5.1	**IC6609**		32	0	8	2.2	61	0	5	3.0	9	0	20	0	39	0	23	4.8
1	4.5	1	0	12	0	1	0	33	—	9	5.1	62	3.9	6	3.6	10	0	**Q6601**		40	0	24	4.4
2	0.6	2	3.5	13	5.1	2	5.1	34	—	10	0	63	1.1	7	0.1	11	0.9	E	11.9	41	3.1	25	2.4
3	5.1	3	3.6	14	4.5	3	5.1	35	0	11	5.1	64	0	8	3.6	12	0	C	11.8	42	0	26	3.9
4	0	4	[illegible]	15	5.1	4	5.1	36	0	12	5.1	65	0	9	0	13	3.4	B	11.1	43	4.6	27	4.7
5	0	5	3.6	16	5.1	5	5.1	37	0	13	5.1	66	0	10	0	14	3.4	**Q6602**		44	5.1	28	0.2
6	5.1	6	3.0	17	5.1	6	5.1	38	1.4	14	5.0	67	0	11	5.1	15	3.4	E	0	45	3.1	29	5.2
7	0	7	4.1	18	5.1	7	5.1	39	0	15	5.0	68	0	12	5.1	16	3.4	C	0	46	5.1	30	5.2
8	5.1	8	0.6	19	0	8	5.1	40	1.4	16	5.0	69	5.0	13	0	17	3.4	B	0.7	47	2.6	31	5.1
9	0	9	0	20	5.1	9	0	41	1.4	17	5.1	70	0	14	0	18	3.4	**Q6603**		48	5.1	32	5.1
10	5.1	10	0	**IC6607**		10	0	42	1.4	18	0	71	0	15	0	19	0	S	7.5	49	1.9	33	0
11	0	11	0	1	5.1	11	0	43	1.4	19	5.1	72	3.4	16	0	20	3.4	G	6.9	50	5.1	34	0
12	0	12	0.6	2	0.5	12	5.1	44	0	20	0	73	3.4	17	0	**IC6618**		D	6.9	51	1.9	35	0
13	5.0	13	4.4	3	0.4	13	5.1	**IC6611**		21	0	74	0	18	3.5	1	0			52	5.1	**P6603**	
14	5.1	14	3.1	4	0.4	14	5.1	1	5.1	22	5.1	75	3.4	19	4.5	2	0	**P6601**		53	1.5	1	5.2
IC6602		15	3.7	5	0.4	15	5.1	2	5.1	23	5.0	76	3.4	20	3.0	3	0	1	0	54	0	2	0
1	0.6	16	0.1	6	0.4	16	5.1	3	5.1	24	5.0	77	3.4	21	2.6	4	1.4	2	0	55	2.2	3	0.2
2	0	17	3.7	7	0.4	17	5.1	4	5.1	25	4.5	78	3.4	22	1.9	5	0	3	0.6	56	5.1	**P6604**	
3	5.1	18	3.5	8	0.4	18	5.1	5	5.1	26	5.1	79	2.4	23	1.9	6	0	4	5.1	57	2.0	1	5.2
4	5.1	19	0	9	0.4	19	0	6	5.1	27	5.1	80	3.9	24	1.4	7	0	5	0.7	58	5.1	2	5.2
5	0.6	20	5.1	10	0	20	5.1	7	0	28	0	81	4.4	25	2.2	8	0	6	0.7	59	0.8	3	11.9
6	4.5	**IC6605**		11	0	**IC6610**		8	5.1	29	1.4	82	0	26	5.1	9	0	7	0.7	60	0.7	4	0
7	0	1	0	12	0	1	5.1	9	5.1	30	0	83	5.1	27	0	10	0	8	0.7	61	0.7		
8	5.1	2	3.9	13	0	2	0	10	5.1	31	0	84	5.1	28	4.5	11	0	9	0.7	62	0.7	**TP6601**	5.1
9	5.1	3	1.1	14	1.4	3	1.4	11	5.1	32	1.4	85	5.1	29	0	12	0	10	0.7	63	0.7	**TP6602**	5.1
10	0	4	0	15	0	4	0	12	5.1	33	0	86	5.1	30	0	13	0	11	0.7	64	0.7	**TP6603**	5.0
11	5.1	5	0	16	0	5	0	13	5.1	34	0	87	5.1	31	1.4	14	0	12	0.7	65	5.1	**TP6604**	0
12	0	6	0	17	1.4	6	5.1	14	5.1	35	0	88	5.0	32	0	15	0	13	5.1	66	5.1	**TP6605**	[illegible]
13	0	7	0	18	0	7	1.4	**IC6612**		36	0	89	5.1	33	0	16	0.9	14	0.7	67	0	**TP6606**	[illegible]
14	5.1	8	5.0	19	5.1	8	0	1	5.0	37	0	90	5.1	34	0	17	0	15	0.1	68	0	**TP6607**	
IC6603		9	0	20	5.1	9	0	2	5.1	38	0	91	5.1	35	0	18	0	16	5.1	**P6602**		**TP6608**	
1	0	10	0	**IC6608**		10	0	3	5.0	39	1.4	92	5.1	36	1.4	19	0	17	4.5	1	3.4	**TP6609**	6.8
2	2.0	11	0	1	5.1	11	—	4	5.1	40	1.4	93	0	37	5.1	20	3.4	18	5.1	2	3.4	**TP6610**	6.8
3	2.1	12	5.1	2	0.5	12	—	5	5.0	41	1.4	94	2.2	38	1.4	**IC6619**		19	3.7	3	3.4		
4	1.4	13	0	3	0.4	13	0	6	5.1	42	1.4	95	2.3	39	1.4	1	0	20	5.1	4	3.3		
5	1.9	14	0	4	0.4	14	0	7	5.1	43	0	96	5.1	40	0	2	0	21	3.7	5	3.3		
6	1.9	15	0	5	0.4	15	3.9	8	0	44	1.4	97	5.1	41	1.4	3	1.4	22	5.1	6	3.3		
7	2.6	16	0	6	0.5	16	1.2	9	5.1	45	2.0	98	4.7	42	0	4	1.4	23	3.5	7	0		
8	3.0	17	1.1	7	0.4	17	0	10	5.1	46	5.1	99	0	43	1.4	5	1.4	24	1.1	8	0.9		
9	4.5	18	3.9	8	0.4	18	2.2	11	5.1	47	2.2	100	5.1	44	0	6	1.4	25	4.4	9	0		
10	0	19	0	9	0.4	19	1.4	12	5.1	48	1.4	101	5.1	45	0	7	1.4	26	0	10	0		
11	4.6	20	5.1	10	0	20	1.9	13	5.1	49	1.9	102	0	46	0	8	5.0	27	0.6	11	0.9		
12	3.1	**IC6606**		11	1.4	21	1.9	14	5.1	50	1.9	103	3.4	47	5.1	9	0	28	0	12	0		
13	2.6	1	0	12	1.4	22	5.1	15	0	51	2.6	**IC6615**		48	1.1	10	0	29	5.1	13	0		
14	1.9	2	5.1	13	1.4	23	0	16	5.1	52	3.0	1	5.1	**IC6617**		11	0	30	0	14	0		
15	1.9	3	5.1	14	1.4	24	2.6	**IC6613**		53	4.5	2	5.1	1	0	12	3.4	31	5.1	15	0		
16	1.5	4	5.1	15	1.4	25	3.0	1	5.1	54	3.5	3	0	2	5.1	13	0.9	32	0	16	0		
17	2.2	5	5.1	16	0	26	4.5	2	5.1	55	3.6			3	5.1	14	0.9	33	6.8	17	0		
18	2.0	6	4.5	17	0	27	3.5	3	1.2	56	0.1	**IC6616**		4	5.1	15	0.9	34	5.8	18	0.9		
19	0	7	5.1	18	0	28	3.6	4	4.3	57	3.6	1	3.9	5	5.1	16	0.9	35	6.8	19	0.9		
20	5.1	8	0	19	5.1	29	4.5	5	4.1	58	3.0	2	0	6	5.1	17	0.9	36	6.8	20	0.9		
		9	5.1	20	5.1	30	4.3	6	3.9	59	4.4	3	0.6	7	5.1	18	0	37	3.9	21	0.9		
		10	0			31	4.1	7	3.2	60	0.6	4	4.4	8	0	19	0	38	5.1	22	0.9		

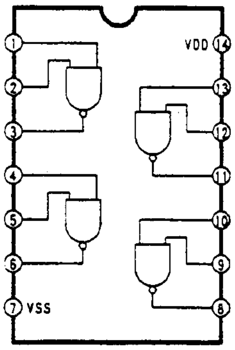
IC6951
(UPD74HC123AG)



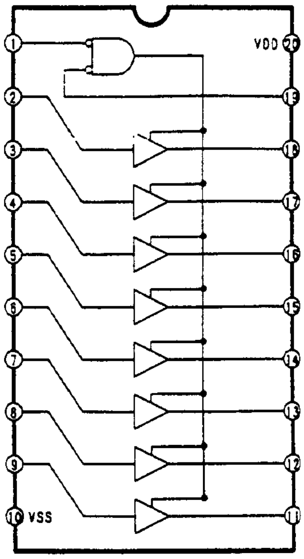
IC6601
(D74HCU04GE1)


A1
Y1
A2
Y2
A3
Y3
VSS
VDD
A6
Y6
A5
Y5
A4
Y4
1
2
3
4
5
6
7
8
9
10
11
12
13
14

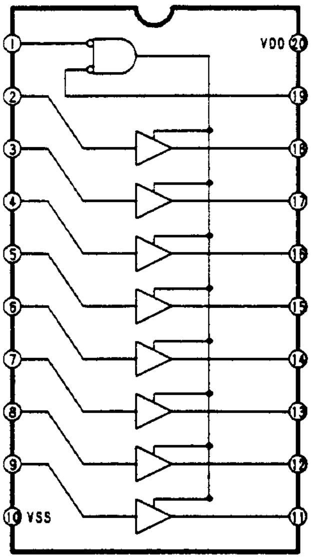
IC6602
(MC74HC00AF)


VDD
VSS
1
2
3
4
5
6
7
8
9
10
11
12
13
14

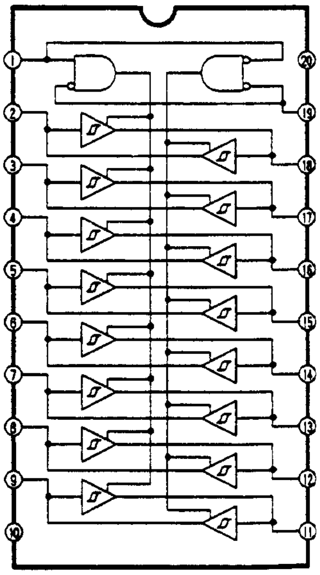
IC6603, IC6604, IC6605,
IC6606, IC6609
(TC74HCT541AF)


VDD
VSS
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

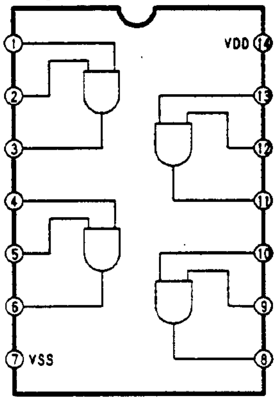
IC6617, IC6618, IC6619,
(TC74LCX541FT)


VDD
VSS
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

IC6607, IC6608
(TC74LCX245F)


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

IC6611
(TC74HCT08AF)


VDD
VSS
1
2
3
4
5
6
7
8
9
10
11
12
13
14

IC6612
(TC74ACT157F)

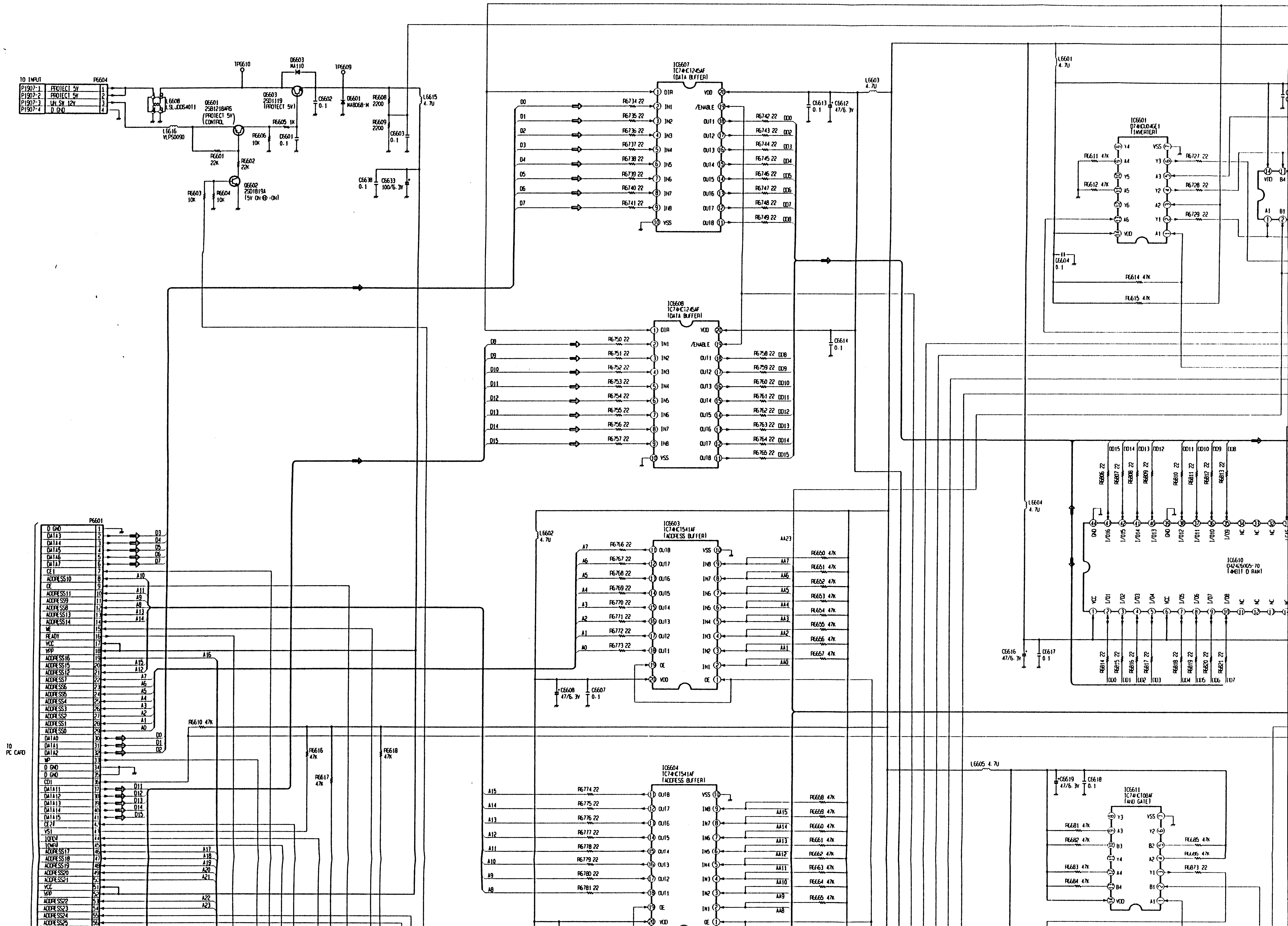
INPUT DATA SELECTOR

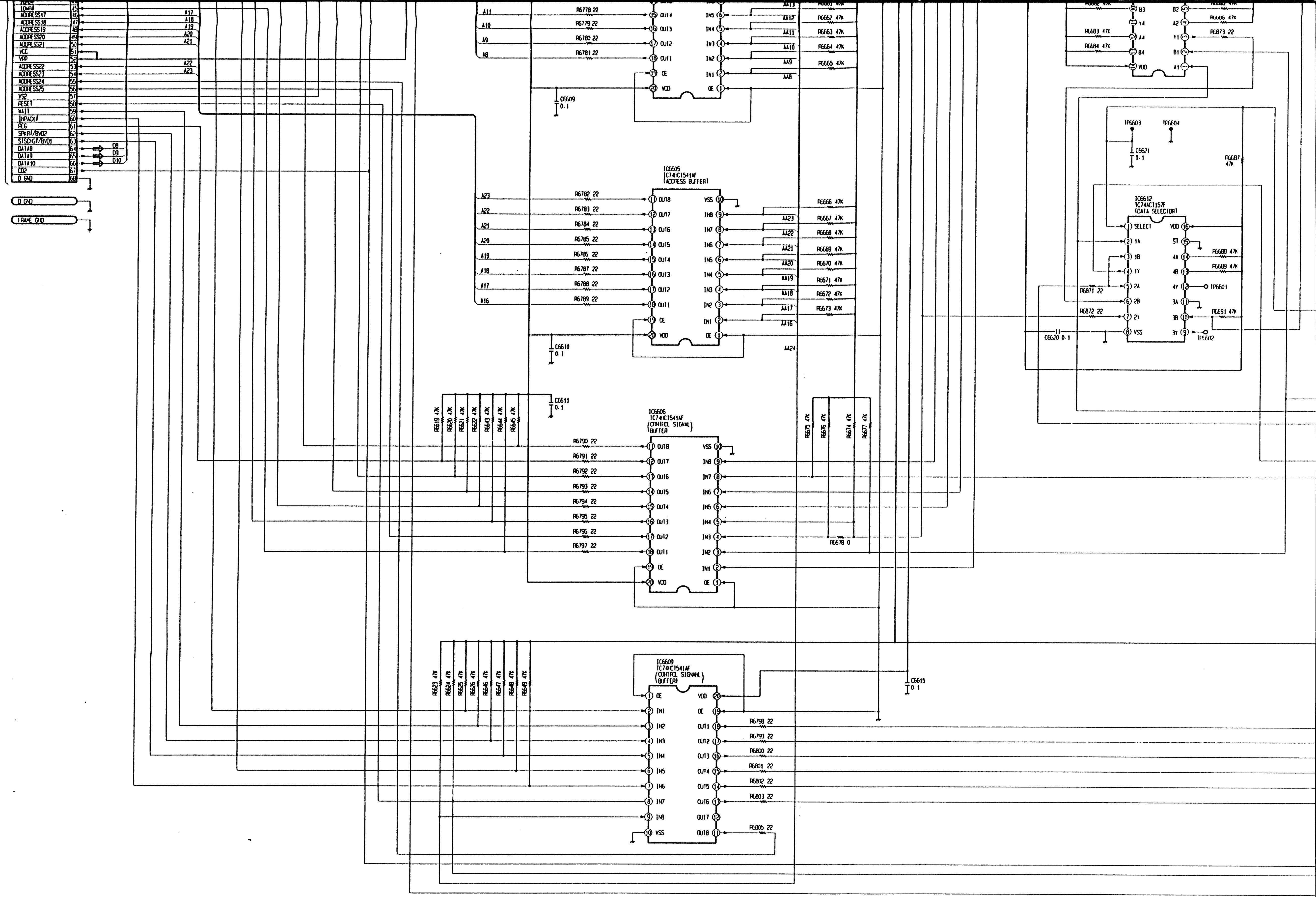
INPUTS				OUTPUTS
$\overline{ST}$	SELECT	A	B	Y
H	X	X	X	L
L	L	L	X	L
L	L	H	X	H
L	H	X	L	L
L	H	X	H	H

I/O CHART FOR 32BIT RISC MICROCONTROLLER
IC6613 (MB91101PF)

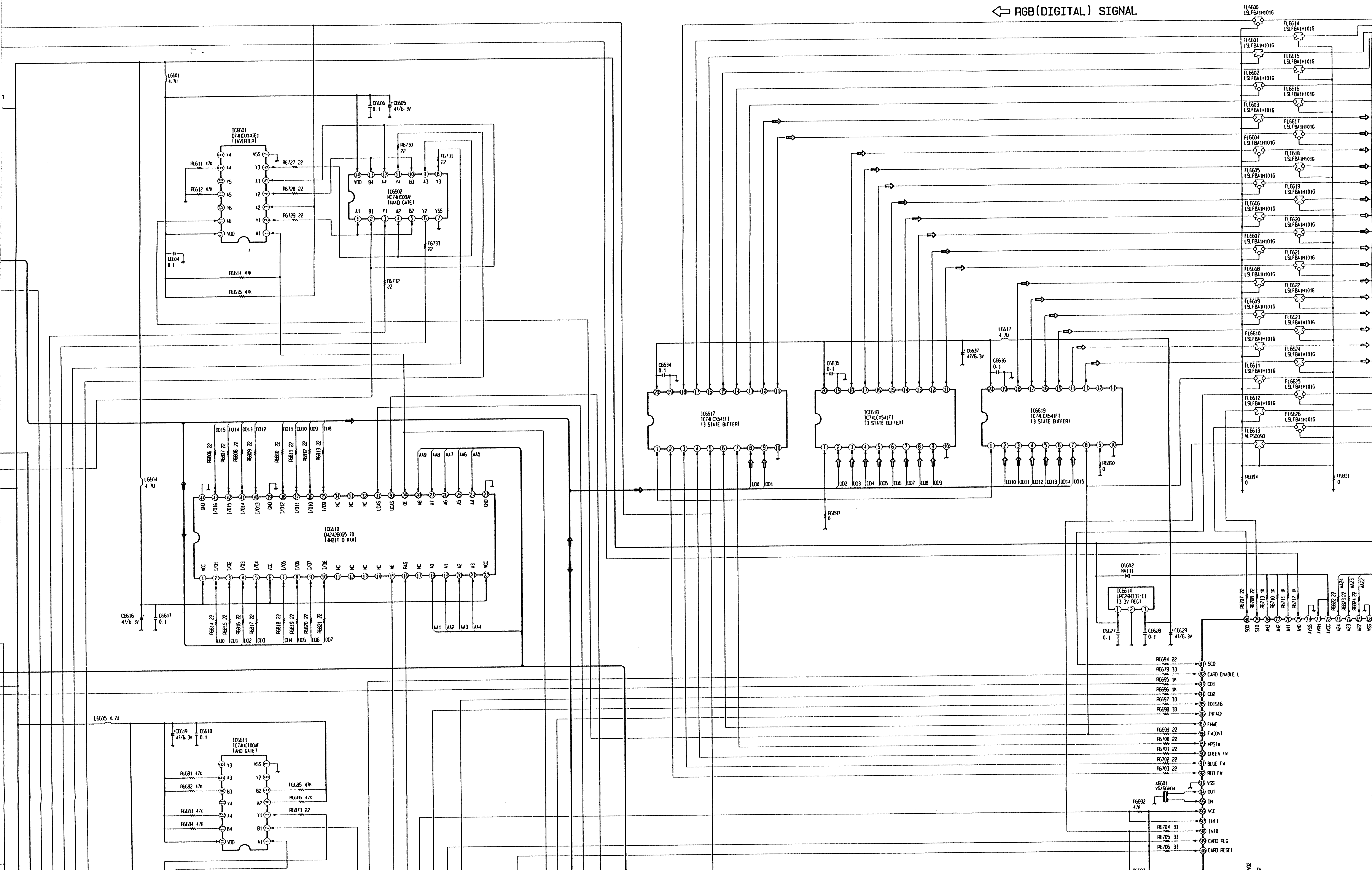
PIN NO.	PORT NAME	I/O	FUNCTION	PIN NO.	PORT NAME	I/O	FUNCTION
1	STSCHG/BVD1	I	STSCHG/BVD1 Signal Input	50	A4	O	Adress Output
2	SPKR/BVD2	I	SPKR/BVD2 Signal Input	51	A5	O	Adress Output
3	RAS	O	RAS Signal Output	52	A6	O	Adress Output
4	CSIL	O	UCAS Signal Output	53	A7	O	Adress Output
5	CSIM	O	LCAS Signal Output	54	A8	O	Adress Output
6	DW1X	O	WE Signal Output: LOW	55	A9	O	Adress Output
7	VCC	I	+5V	56	A10	O	Adress Output
8	CLK	O	Ext. Clock Output	57	A11	O	Adress Output
9	CS5X	—	(Not used)	58	A12	O	Adress Output
10	CS4X	—	(Not used)	59	A13	O	Adress Output
11	CS3X	O	Card-A25 Output: LOW	60	A14	O	Adress Output
12	CS2X	O	Card-CE1/Card-CE2 Output: LOW	61	A15	O	Adress Output
13	CS1X	O	(Not used)	62	A16	O	Adress Output
14	CS0X	O	ROM Chip Select: LOW	63	A17	O	Adress Output
15	NMIX	I	+5V	64	A18	O	Adress Output
16	HSTX	I	+5V	65	A19	O	Adress Output
17	RSTX	I	IC6613 Reset: LOW	66	A20	O	Adress Output
18	VSS	—	Grounding Terminal	67	A21	O	Adress Output
19	MD0	I	+5V	68	VSS	—	Grounding Terminal
20	MD1	I	Grounding Terminal	69	A22	O	Adress Output
21	MD2	I	MD2 Pulse Input	70	A23	O	Adress Output
22	P80/RDY	I	P80/RDY Signal Input	71	A24	O	Adress Output
23	FLASH L	I	Flash Memory Write Mode: LOW	72	AVCC	I	+3V
24	5V ON H	O	PC Card 5V ON: HIGH	73	AVRH	I	+3V
25	RDX	O	RD Signal Output	74	AVSS/AVRL	—	Grounding Terminal
26	WR0X	O	Frame Memory Write Clock Signal Output	75	AN0	I	(Not used)
				76	AN1	I	(Not used)
27	WR1X	O	Flash Memory Write Signal Output: HIGH	77	AN2	I	(Not used)
				78	AN3	I	(Not used)
28	D16	I/O	Data Input/Output	79	SIO	I	Serial Data Input
29	D17	I/O	Data Input/Output	80	SOO	O	Serial Data Output
30	D18	I/O	Data Input/Output	81	SCO	I	Serial Clock Input
31	D19	I/O	Data Input/Output	82	CARD ENABLE L	O	Card Enable: LOW
32	D20	I/O	Data Input/Output	83	CD1	I	Card Detect Input: LOW
33	D21	I/O	Data Input/Output	84	CD2	I	Card Detect Input: LOW
34	D22	I/O	Data Input/Output	85	IOIS16	I	16bit Mode Input: LOW
35	D23	I/O	Data Input/Output	86	INPACK	I	CARD READY: HIGH
36	D24	I/O	Data Input/Output	87	FMWE	O	Frame Memory Write: LOW
37	D25	I/O	Data Input/Output	88	FWCONT	O	Frame Memory Control: HIGH
38	D26	I/O	Data Input/Output	89	FMRESET	O	Reset Pulse Output: LOW
39	D27	I/O	Data Input/Output	90	GREEN FW	O	Frame Memory Green Control: LOW
40	D28	I/O	Data Input/Output	91	BLUE FW	O	Frame Memory Blue Control: LOW
41	D29	I/O	Data Input/Output	92	RED FW	O	Frame Memory Red Control: LOW
42	D30	I/O	Data Input/Output	93	VSS	—	Grounding Terminal
43	VSS	—	Grounding Terminal	94	OUT	O	Oscillation 12.5MHz
44	D31	I/O	Data Input/Output	95	IN	I	Reference Clock IC6613
45	A0	O	Adress Output	96	VCC	I	+5V
46	VCC	I	+5V	97	INT1	I	Card Interrupt Signal Input
47	A1	O	Adress Output	98	INT0	I	IC6613 Chip Select Input: LOW
48	A2	O	Adress Output	99	CARD REG	O	CARD REG Signal Output
49	A3	O	Adress Output	100	CARD RESET	O	Card Reset Pulse Output: HIGH

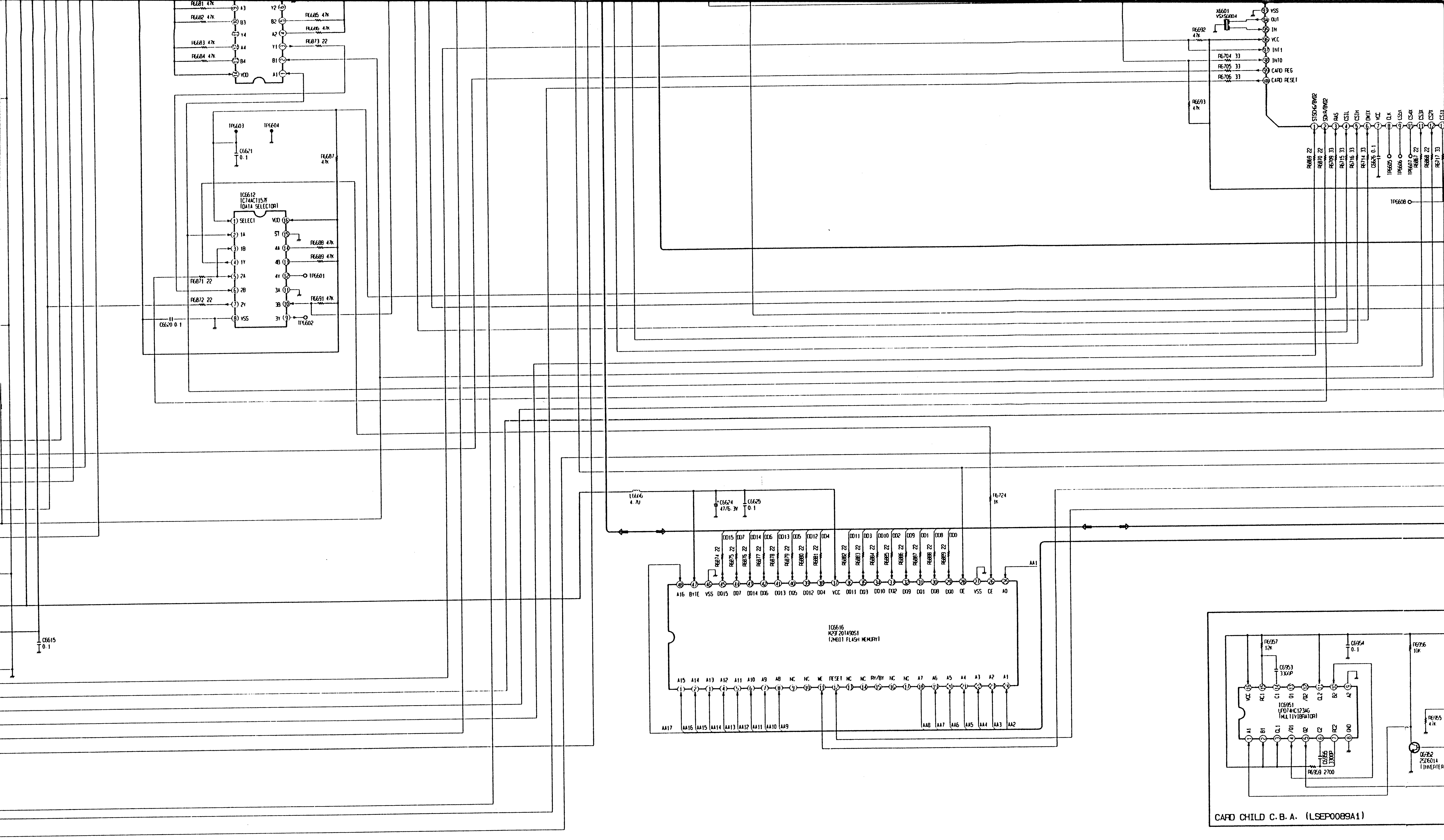
CARD SCHEMATIC DIAGRAM


TO INPUT
P6604
P1907-1 PROTECT 5V
P1907-2 PROTECT 5V
P1907-3 UN SW 12V
P1907-4 D GND
TP6610
D6603 MA110
TP6609
Q6601 2SB1218ARS (PROTECT 5V) CONTROL
Q6603 2SD1119 (PROTECT 5V)
Q6602 2SD1819A (5V ON ⊕ :ON)
D6601 MA8068-M
L6615 4.7U
L6616 YLP50090
IC6607 TC74HC1245AF (DATA BUFFER)
IC6608 TC74HC1245AF (DATA BUFFER)
IC6603 TC74HC1541AF (ADDRESS BUFFER)
IC6604 TC74HC1541AF (ADDRESS BUFFER)
IC6601 D74HCU04GE1 (INVERTER)
IC6610 D424260G5-70 (4MBIT D RAM)
IC6611 TC74HC08AF (AND GATE)
L6601 4.7U
L6602 4.7U
L6603 4.7U
L6604 4.7U
L6605 4.7U
P6601
TO PC CARD
D GND
DATA3
DATA4
DATA5
DATA6
DATA7
CE1
ADDRESS10
OE
ADDRESS11
ADDRESS9
ADDRESS8
ADDRESS13
ADDRESS14
WE
READY
VCC
VPP
ADDRESS16
ADDRESS15
ADDRESS12
ADDRESS7
ADDRESS6
ADDRESS5
ADDRESS4
ADDRESS3
ADDRESS2
ADDRESS1
ADDRESS0
DATA0
DATA1
DATA2
WP
D GND
D GND
CD1
DATA11
DATA12
DATA13
DATA14
DATA15
CE2
VS1
IORD
IOWR
ADDRESS17
ADDRESS18
ADDRESS19
ADDRESS20
ADDRESS21
VCC
VPP
ADDRESS22
ADDRESS23
ADDRESS24
ADDRESS25


IOWR
ADDRESS17
ADDRESS18
ADDRESS19
ADDRESS20
ADDRESS21
VCC
VPP
ADDRESS22
ADDRESS23
ADDRESS24
ADDRESS25
VS2
RESET
WAIT
INPACK
REG
SPKR/BVD2
STSCHG/BVD1
DATA8
DATA9
DATA10
CD2
D GND
D GND
FRAME GND
D8
D9
D10
A17
A18
A19
A20
A21
A22
A23
A11
A10
A9
A8
R6778 22
R6779 22
R6780 22
R6781 22
OUT4
OUT3
OUT2
OUT1
OE
VDD
IN5
IN4
IN3
IN2
IN1
OE
AA12
AA11
AA10
AA9
AA8
R6662 47K
R6663 47K
R6664 47K
R6665 47K
C6609
0.1
IC6605
TC74HC1541AF
(ADDRESS BUFFER)
A23
A22
A21
A20
A19
A18
A17
A16
R6782 22
R6783 22
R6784 22
R6785 22
R6786 22
R6787 22
R6788 22
R6789 22
OUT8
OUT7
OUT6
OUT5
OUT4
OUT3
OUT2
OUT1
OE
VDD
VSS
IN8
IN7
IN6
IN5
IN4
IN3
IN2
IN1
OE
AA23
AA22
AA21
AA20
AA19
AA18
AA17
AA16
AA24
R6666 47K
R6667 47K
R6668 47K
R6669 47K
R6670 47K
R6671 47K
R6672 47K
R6673 47K
C6610
0.1
C6611
0.1
R6619 47K
R6620 47K
R6621 47K
R6622 47K
R6643 47K
R6644 47K
R6645 47K
IC6606
TC74HC1541AF
(CONTROL SIGNAL)
BUFFER
R6790 22
R6791 22
R6792 22
R6793 22
R6794 22
R6795 22
R6796 22
R6797 22
OUT8
OUT7
OUT6
OUT5
OUT4
OUT3
OUT2
OUT1
OE
VDD
VSS
IN8
IN7
IN6
IN5
IN4
IN3
IN2
IN1
OE
R6675 47K
R6676 47K
R6674 47K
R6677 47K
R6678 0
IC6609
TC74HC1541AF
(CONTROL SIGNAL)
(BUFFER)
R6623 47K
R6624 47K
R6625 47K
R6626 47K
R6646 47K
R6647 47K
R6648 47K
R6649 47K
OE
IN1
IN2
IN3
IN4
IN5
IN6
IN7
IN8
VSS
VDD
OE
OUT1
OUT2
OUT3
OUT4
OUT5
OUT6
OUT7
OUT8
R6798 22
R6799 22
R6800 22
R6801 22
R6802 22
R6803 22
R6805 22
C6615
0.1
B3
Y4
A4
B4
VDD
B2
A2
Y1
B1
A1
R6683 47K
R6684 47K
R6685 47K
R6873 22
TP6603
TP6604
C6621
0.1
R6687
47K
IC6612
TC74AC1157F
(DATA SELECTOR)
SELECT
1A
1B
1Y
2A
2B
2Y
VSS
VDD
ST
4A
4B
4Y
3A
3B
3Y
R6871 22
R6872 22
C6620 0.1
R6688 47K
R6689 47K
TP6601
R6691 47K
TP6602

ViewSonic Corporation


RGB(DIGITAL) SIGNAL
FL6600 LSLFBA1H101G
FL6601 LSLFBA1H101G
FL6602 LSLFBA1H101G
FL6603 LSLFBA1H101G
FL6604 LSLFBA1H101G
FL6605 LSLFBA1H101G
FL6606 LSLFBA1H101G
FL6607 LSLFBA1H101G
FL6608 LSLFBA1H101G
FL6609 LSLFBA1H101G
FL6610 LSLFBA1H101G
FL6611 LSLFBA1H101G
FL6612 LSLFBA1H101G
FL6613 VLPS0090
FL6614 LSLFBA1H101G
FL6615 LSLFBA1H101G
FL6616 LSLFBA1H101G
FL6617 LSLFBA1H101G
FL6618 LSLFBA1H101G
FL6619 LSLFBA1H101G
FL6620 LSLFBA1H101G
FL6621 LSLFBA1H101G
FL6622 LSLFBA1H101G
FL6623 LSLFBA1H101G
FL6624 LSLFBA1H101G
FL6625 LSLFBA1H101G
FL6626 LSLFBA1H101G
L6601 4.7U
C6606 0.1
C6605 47/6.3V
IC6601 D74HC04GE1 (INVERTER)
R6611 47K
R6612 47K
R6727 22
R6728 22
R6729 22
R6730 22
R6731 22
R6732 22
R6733 22
IC6602 TC74HC00AF (NAND GATE)
VDD B4 A4 Y4 B3 A3 Y3
A1 B1 Y1 A2 B2 Y2 VSS
C6604 0.1
R6614 47K
R6615 47K
L6604 4.7U
C6616 47/6.3V
C6617 0.1
IC6610 D424260G5-70 (4BIT D RAM)
DD15 DD14 DD13 DD12 DD11 DD10 DD9 DD8
R6806 22
R6807 22
R6808 22
R6809 22
R6810 22
R6811 22
R6812 22
R6813 22
AA9 AA8 AA7 AA6 AA5
GND I/O16 I/O15 I/O14 I/O13 GND I/O12 I/O11 I/O10 I/O9 NC NC NC LCAS UCAS OE A8 A7 A6 A5 A4 GND
VCC I/O1 I/O2 I/O3 I/O4 VCC I/O5 I/O6 I/O7 I/O8 NC NC NC WE RAS NC A0 A1 A2 A3 VCC
R6814 22
R6815 22
R6816 22
R6817 22
R6818 22
R6819 22
R6820 22
R6821 22
DD0 DD1 DD2 DD3 DD4 DD5 DD6 DD7
AA1 AA2 AA3 AA4
C6634 0.1
IC6617 TC74LCX541FT (3 STATE BUFFER)
DD0 DD1
C6635 0.1
IC6618 TC74LCX541FT (3 STATE BUFFER)
DD2 DD3 DD4 DD5 DD6 DD7 DD8 DD9
R6697 0
L6617 4.7U
C6637 47/6.3V
C6636 0.1
IC6619 TC74LCX541FT (3 STATE BUFFER)
DD10 DD11 DD12 DD13 DD14 DD15
R6690 0
R6694 0
R6691 0
D6602 MA111
IC6614 UPC29M33T-E1 (3.3V REG)
C6627 0.1
C6628 0.1
C6629 47/6.3V
R6707 22
R6708 22
R6713 1K
R6710 1K
R6711 1K
R6712 1K
R6822 22
R6823 22
R6824 22
SCO SIO WR3 WR2 WR1 WR0 AVSS AVRH AVCC A24 A23 A22
R6694 22
R6679 33
R6695 1K
R6696 1K
R6697 33
R6698 33
R6699 22
R6700 22
R6701 22
R6702 22
R6703 22
SCO
CARD ENABLE L
CD1
CD2
IOIS16
INPACK
FWWE
FWCONT
MPSIW
GREEN FW
BLUE FW
RED FW
X6601 VSYS0804
VSS
OUT
IN
R6692 47K
VCC
INT1
INT0
R6704 33
R6705 33
R6706 33
CARD REG
CARD RESET
L6605 4.7U
C6619 47/6.3V
C6618 0.1
IC6611 TC74HC08AF (AND GATE)
R6681 47K
R6682 47K
R6683 47K
R6684 47K
R6685 47K
R6686 47K
R6873 22
Y3 A3 B3 Y4 A4 B4 VDD
VSS Y2 B2 A2 Y1 B1 A1


IC6612
IC74AC1157F
(DATA SELECTOR)
TP6603
TP6604
C6621 0.1
R6687 47K
R6688 47K
R6689 47K
R6691 47K
R6671 22
R6672 22
TP6601
TP6602
C6620 0.1
C6615 0.1
R6681 47K
R6682 47K
R6683 47K
R6684 47K
R6685 47K
R6686 47K
R6873 22
L6646 4.7U
C6624 47/6.3V
C6625 0.1
R6724 1K
IC6616
M29F201490S1
(2MBIT FLASH MEMORY)
A16 BYTE VSS DQ15 DQ7 DQ14 DQ6 DQ13 DQ5 DQ12 DQ4 VCC DQ11 DQ3 DQ10 DQ2 DQ9 DQ1 DQ8 DQ0 OE VSS CE A0
A15 A14 A13 A12 A11 A10 A9 A8 NC NC WE RESET NC NC RY/BY NC NC A7 A6 A5 A4 A3 A2 A1
AA17 AA16 AA15 AA14 AA13 AA12 AA11 AA10 AA9
AA8 AA7 AA6 AA5 AA4 AA3 AA2
AA1
X6601
VSX50804
VSS OUT IN VCC INT1 INT0 CARD REG CARD RESET
R6692 47K
R6693 47K
R6704 33
R6705 33
R6706 33
STSCHG/BVD2 SDA/BVD2 RAS CS1L CS1H OMIX VCC CLK CS1 CS4 CS3 CS2 CS1
TP6605
TP6606
TP6607
TP6608
IC6951
UFD74HC123AG
(MULTIVIBRATOR)
VCC RC1 C1 Q1 /Q2 CL2 B2 A2
A1 B1 CL1 /Q1 Q2 C2 RC2 GND
R6957 12K
C6953 3300P
C6954 0.1
C6955 3300P
R6958 2700
R6956 10K
R6955 47K
Q6752
2SD601A
(INVERTER)
CARD CHILD C.B.A. (LSEP0089A1)

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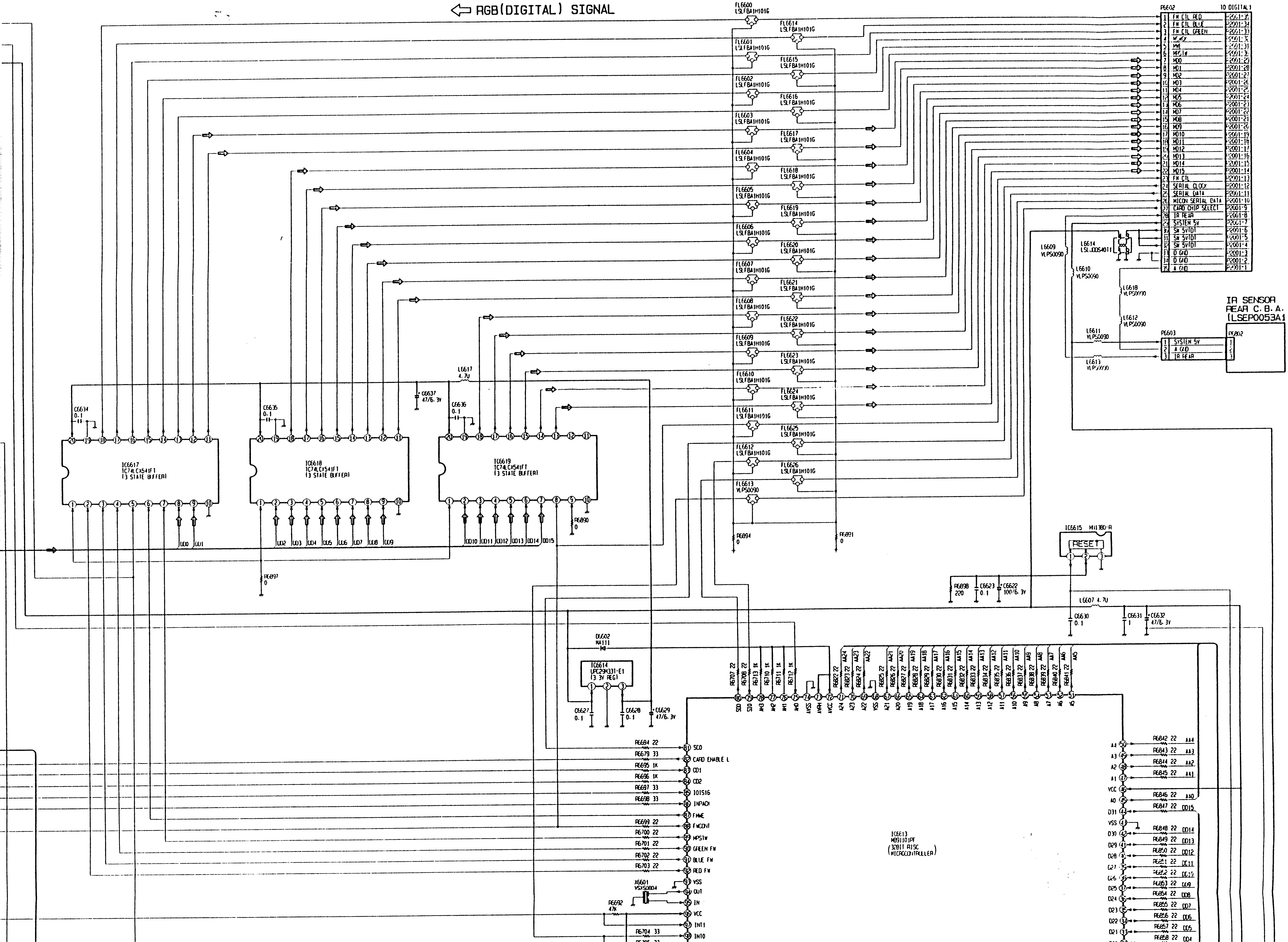
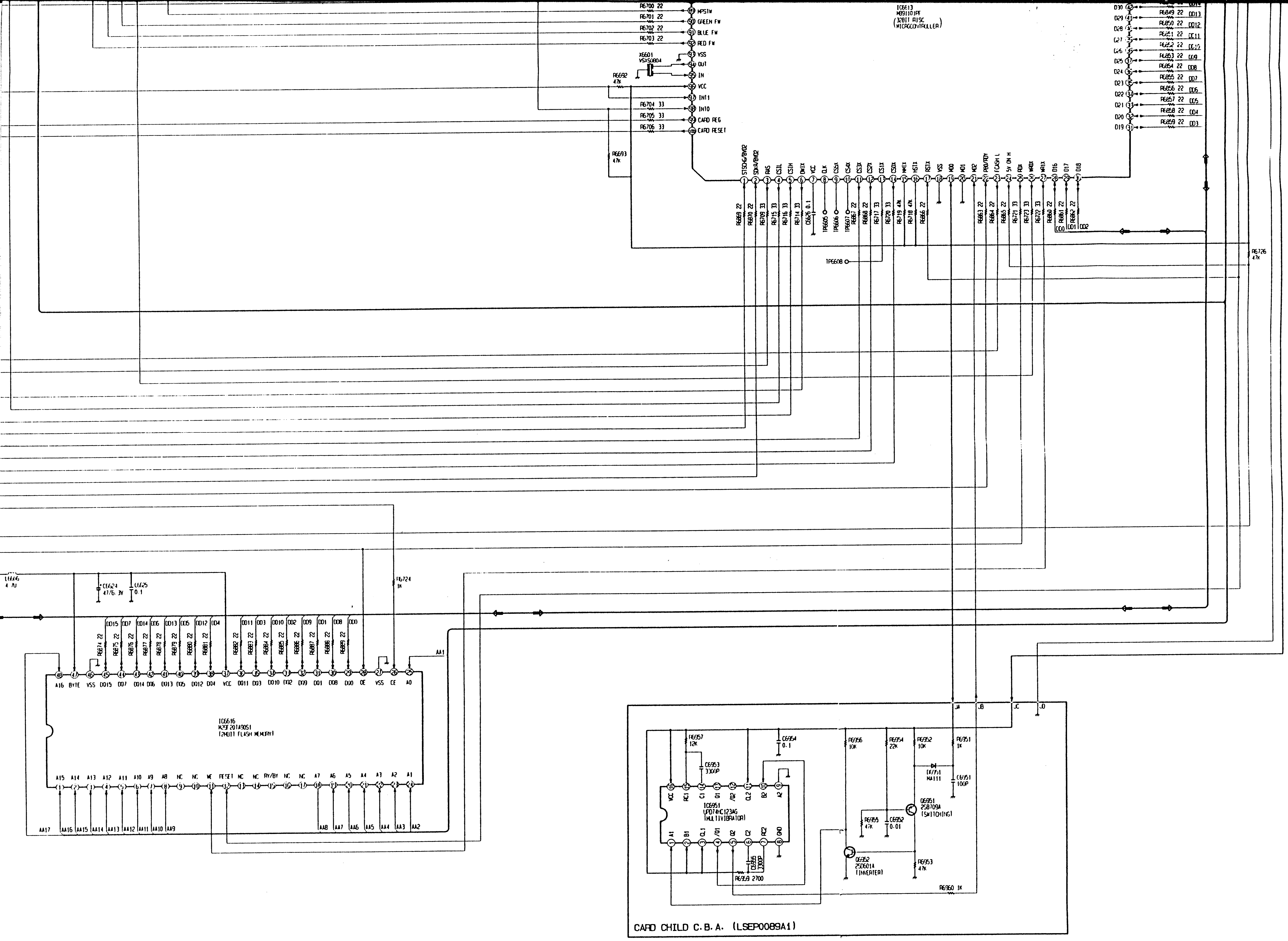
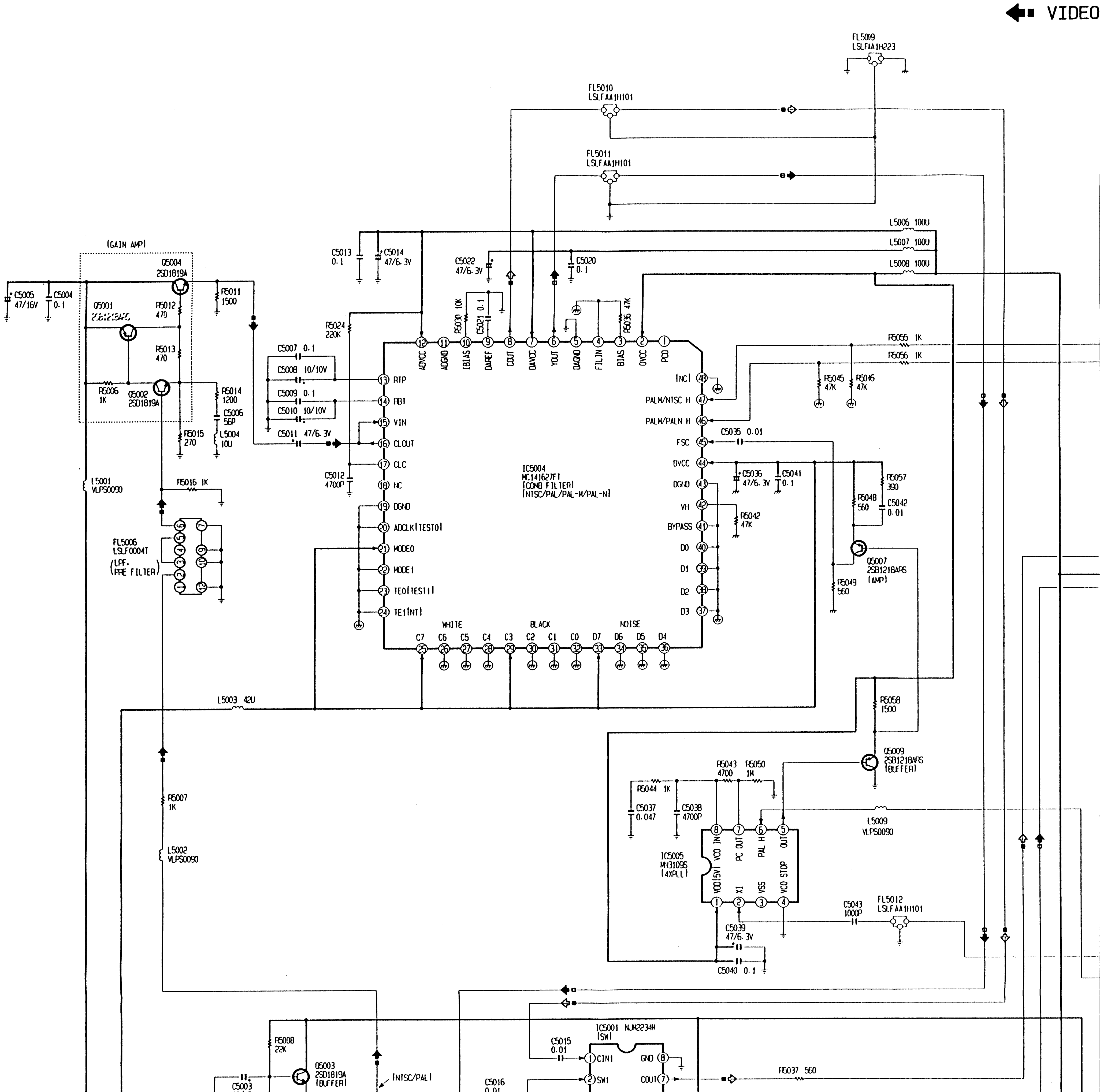
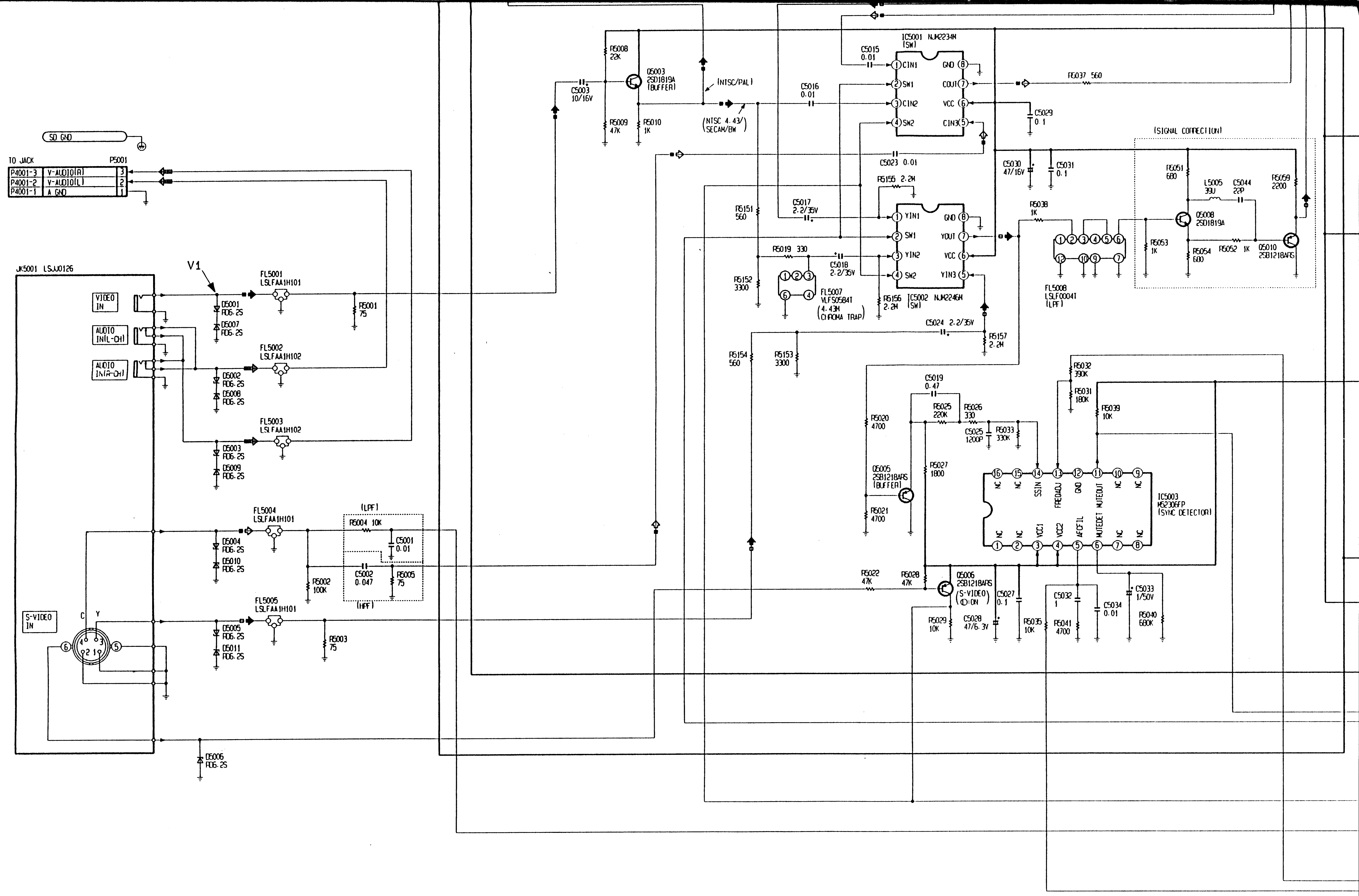

RGB(DIGITAL) SIGNAL
FL6600 LSLFBA1H101G
FL6601 LSLFBA1H101G
FL6602 LSLFBA1H101G
FL6603 LSLFBA1H101G
FL6604 LSLFBA1H101G
FL6605 LSLFBA1H101G
FL6606 LSLFBA1H101G
FL6607 LSLFBA1H101G
FL6608 LSLFBA1H101G
FL6609 LSLFBA1H101G
FL6610 LSLFBA1H101G
FL6611 LSLFBA1H101G
FL6612 LSLFBA1H101G
FL6613 VLPS0090
FL6614 LSLFBA1H101G
FL6615 LSLFBA1H101G
FL6616 LSLFBA1H101G
FL6617 LSLFBA1H101G
FL6618 LSLFBA1H101G
FL6619 LSLFBA1H101G
FL6620 LSLFBA1H101G
FL6621 LSLFBA1H101G
FL6622 LSLFBA1H101G
FL6623 LSLFBA1H101G
FL6624 LSLFBA1H101G
FL6625 LSLFBA1H101G
FL6626 LSLFBA1H101G
P6602
10 DIGITAL 1
1 FM CTL RED P2001-35
2 FM CTL BLUE P2001-34
3 FM CTL GREEN P2001-33
4 MCRDY P2001-32
5 MWE P2001-31
6 MPSIW P2001-30
7 MD0 P2001-29
8 MD1 P2001-28
9 MD2 P2001-27
10 MD3 P2001-26
11 MD4 P2001-25
12 MD5 P2001-24
13 MD6 P2001-23
14 MD7 P2001-22
15 MD8 P2001-21
16 MD9 P2001-20
17 MD10 P2001-19
18 MD11 P2001-18
19 MD12 P2001-17
20 MD13 P2001-16
21 MD14 P2001-15
22 MD15 P2001-14
23 FM CTL P2001-13
24 SERIAL CLOCK P2001-12
25 SERIAL DATA P2001-11
26 MICON SERIAL DATA P2001-10
27 CARD CHIP SELECT P2001-9
28 IR REAR P2001-8
29 SYSTEM 5V P2001-7
30 SW 5V(D) P2001-6
31 SW 5V(D) P2001-5
32 SW 5V(D) P2001-4
33 D GND P2001-3
34 D GND P2001-2
35 A GND P2001-1
L6609 VLPS0090
L6614 LSLJ0054011
L6610 VLPS0090
L6618 VLPS0090
L6612 VLPS0090
L6611 VLPS0090
L6613 VLPS0090
IR SENSOR REAR C. B. A. (LSEP0053A1)
P6603
1 SYSTEM 5V
2 A GND
3 IR REAR
P6802
L6617 4.7U
C6637 47/6.3V
C6634 0.1
C6635 0.1
C6636 0.1
IC6617 TC74LCX541FT (3 STATE BUFFER)
IC6618 TC74LCX541FT (3 STATE BUFFER)
IC6619 TC74LCX541FT (3 STATE BUFFER)
DD0 DD1 DD2 DD3 DD4 DD5 DD6 DD7 DD8 DD9 DD10 DD11 DD12 DD13 DD14 DD15
R6690 0
R6694 0
R6691 0
R6697 0
IC6615 MM1380-A
RESET
R6698 220
C6623 0.1
C6622 100/6.3V
L6607 4.7U
C6630 0.1
C6631 1
C6632 47/6.3V
D6602 MA111
IC6614 UPC29M33T-E1 (3.3V REG)
C6627 0.1
C6628 0.1
C6629 47/6.3V
R6707 22 R6708 22 R6713 1K R6710 1K R6711 1K R6712 1K
SDO SIO MH3 MH2 MH1 MH0 AVSS AVRH AVCC
R6822 22 R6823 22 R6824 22 R6825 22 R6826 22 R6827 22 R6828 22 R6829 22 R6830 22 R6831 22 R6832 22 R6833 22 R6834 22 R6835 22 R6836 22 R6837 22 R6838 22 R6839 22 R6840 22 R6841 22
AA24 AA23 AA22 AA21 AA20 AA19 AA18 AA17 AA16 AA15 AA14 AA13 AA12 AA11 AA10 AA9 AA8 AA7 AA6 AA5
A24 A23 A22 VSS A21 A20 A19 A18 A17 A16 A15 A14 A13 A12 A11 A10 A9 A8 A7 A6 A5
R6684 22 81 SCO
R6679 33 82 CARD ENABLE L
R6695 1K 83 CD1
R6696 1K 84 CD2
R6697 33 85 IOIS16
R6698 33 86 INPACK
87 FMWE
R6699 22 88 FMCONT
R6700 22 89 MPSIW
R6701 22 90 GREEN FW
R6702 22 91 BLUE FW
R6703 22 92 RED FW
93 VSS
X6601 VSXS0804
94 OUT
95 IN
R6692 47K
96 VCC
97 INT1
R6704 33 98 INT0
IC6613 MB91101PF (32BIT RISC MICROCONTROLLER)
A4 50 R6842 22 AA4
A3 49 R6843 22 AA3
A2 48 R6844 22 AA2
A1 47 R6845 22 AA1
VCC 46
A0 45 R6846 22 AA0
D31 44 R6847 22 DD15
VSS 43
D30 42 R6848 22 DD14
D29 41 R6849 22 DD13
D28 40 R6850 22 DD12
D27 39 R6851 22 DD11
D26 38 R6852 22 DD10
D25 37 R6853 22 DD9
D24 36 R6854 22 DD8
D23 35 R6855 22 DD7
D22 34 R6856 22 DD6
D21 33 R6857 22 DD5
R6858 22 DD4


IC6613
MN91101PF
(32BIT RISC MICROCONTROLLER)
X6601
VSX50804
HPSTW
GREEN FW
BLUE FW
RED FW
VSS
OUT
IN
VCC
INT1
INT0
CARD REG
CARD RESET
R6700 22
R6701 22
R6702 22
R6703 22
R6692 47K
R6693 47K
R6704 33
R6705 33
R6706 33
STSCK/BV02
SDIA/BV02
RAS
CS1L
CS1H
DW1X
VCC
CLK
CS5X
CS4X
CS2Y
CS3X
CS1X
CS0X
WR1X
WS1X
RS1X
VSS
MOD
MD1
MD2
RDO/RDY
CASH L
5V ON H
RDX
WR0X
WR1X
D16
D17
D18
TP6605
TP6606
TP6607
TP6608
R6726 47K
R6724 1K
C6624 47/6.3V
C6625 0.1
IC6616
M29F201A90S1
(2MBIT FLASH MEMORY)
A16 BYTE VSS DD15 DD7 DD14 DD6 DD13 DD5 DD12 DD4 VCC DD11 DD3 DD10 DD2 DD9 DD1 DD8 DD0 OE VSS CE A0
A15 A14 A13 A12 A11 A10 A9 A8 NC NC WE RESET NC NC RY/BY NC NC A7 A6 A5 A4 A3 A2 A1
AA1
AA17 AA16 AA15 AA14 AA13 AA12 AA11 AA10 AA9 AA8 AA7 AA6 AA5 AA4 AA3 AA2
IC6951
UPD74HC123AG
(MULTIVIBRATOR)
VCC RC1 C1 Q1 /Q2 CL2 B2 A2
A1 B1 CL1 /Q1 Q2 C2 RC2 GND
R6957 12K
C6953 3300P
C6954 0.1
C6955 3300P
R6959 2700
R6956 10K
R6954 22K
R6952 10K
R6951 1K
D6951 MA111
C6951 100P
Q6951
2SB709A
(SWITCHING)
R6955 47K
C6952 0.01
Q6952
2SD601A
(INVERTER)
R6953 47K
R6960 1K
JA
JB
JC
JD
CARD CHILD C.B.A. (LSEP0089A1)

VIDEO SCHEMATIC DIAGRAM


VIDEO
FL5009 LSLFAA1H223
FL5010 LSLFAA1H101
FL5011 LSLFAA1H101
L5006 100U
L5007 100U
L5008 100U
(GAIN AMP)
Q5004 2SD1819A
Q5001 2SB1218A
Q5002 2SD1819A
C5005 47/16V
C5004 0.1
R5011 1500
R5012 470
R5013 470
R5006 1K
R5014 1200
C5006 56P
R5015 270
L5004 10U
L5001 VLP50090
R5016 1K
FL5006 LSLF0004T (LPF, PRE FILTER)
C5013 0.1
C5014 47/6.3V
C5022 47/6.3V
C5020 0.1
R5030 10K
C5021 0.1
R5036 47K
R5024 220K
C5007 0.1
C5008 10/10V
C5009 0.1
C5010 10/10V
C5011 47/6.3V
C5012 4700P
ADVCC
ADGND
IBIAS
DAREF
COUT
DAVCC
YOUT
DAGND
FILIN
BIAS
DVCC
PCO
RTP
RBT
VIN
CLOUT
CLC
NC
DGND
ADCLK(TEST0)
MODE0
MODE1
TEO(TEST1)
TE1(INT)
IC5004 MC141627FT (COMB FILTER) (NTSC/PAL/PAL-M/PAL-N)
(NC)
PALM/NTSC H
PALM/PALN H
FSC
DVCC
DGND
VH
BYPASS
D0
D1
D2
D3
WHITE
BLACK
NOISE
C7 C6 C5 C4 C3 C2 C1 C0 D7 D6 D5 D4
C5035 0.01
C5036 47/6.3V
C5041 0.1
R5042 47K
R5055 1K
R5056 1K
R5045 47K
R5046 47K
R5057 390
R5048 560
C5042 0.01
Q5007 2SB1218ARS (AMP)
R5049 560
L5003 42U
R5058 1500
Q5009 2SB1218ARS (BUFFER)
R5043 4700
R5050 1M
R5044 1K
C5037 0.047
C5038 4700P
VCO IN
PC OUT
PAL H
OUT
VDD(5V)
X1
VSS
VCO STOP
IC5005 MM3109S (4XPLL)
L5009 VLP50090
C5043 1000P
FL5012 LSLFAA1H101
C5039 47/6.3V
C5040 0.1
R5007 1K
L5002 VLP50090
R5008 22K
Q5003 2SD1819A (BUFFER)
C5003
(NTSC/PAL)
C5015 0.01
IC5001 NJM2234M (SW)
CIN1
SW1
GND
COUT
C5016 0.01
R5037 560


SD GND
TO JACK
P5001
P4001-3 V-AUDIO(R) 3
P4001-2 V-AUDIO(L) 2
P4001-1 A GND 1
JK5001 LSJJ0126
VIDEO IN
AUDIO IN(L-CH)
AUDIO IN(R-CH)
S-VIDEO IN
C Y
V1
FL5001 LSLFAA1H101
FL5002 LSLFAA1H102
FL5003 LSLFAA1H102
FL5004 LSLFAA1H101
FL5005 LSLFAA1H101
D5001 RD6.2S
D5007 RD6.2S
D5002 RD6.2S
D5008 RD6.2S
D5003 RD6.2S
D5009 RD6.2S
D5004 RD6.2S
D5010 RD6.2S
D5005 RD6.2S
D5011 RD6.2S
D5006 RD6.2S
R5001 75
R5002 100K
R5003 75
(LPF)
R5004 10K
C5001 0.01
C5002 0.047
R5005 75
(HPF)
C5003 10/16V
R5008 22K
Q5003 2SD1819A (BUFFER)
R5009 47K
R5010 1K
(NTSC/PAL)
(NTSC 4.43/ SECAM/BW)
C5015 0.01
IC5001 NJM2234M (SW)
CIN1 SW1 CIN2 SW2 GND COUT VCC CIN3
C5016 0.01
C5023 0.01
R5037 560
C5029 0.1
C5030 47/16V
C5031 0.1
R5155 2.2M
R5151 560
C5017 2.2/35V
YIN1 SW1 YIN2 SW2 GND YOUT VCC YIN3
R5019 330
C5018 2.2/35V
R5152 3300
FL5007 VLF50584T (4.43M CHROMA TRAP)
R5156 2.2M
IC5002 NJM2246M (SW)
C5024 2.2/35V
R5157 2.2M
R5154 560
R5153 3300
R5038 1K
FL5008 LSLF0004T (LPF)
(SIGNAL CORRECTION)
R5051 680
L5005 39U
C5044 22P
R5059 2200
Q5008 2SD1819A
R5053 1K
R5054 600
R5052 1K
Q5010 2SB1218ARS
R5032 390K
R5031 180K
R5039 10K
C5019 0.47
R5025 220K
R5026 330
C5025 1200P
R5033 330K
R5020 4700
Q5005 2SB1218ARS (BUFFER)
R5027 1800
R5021 4700
NC NC SSIN FREQADJ GND MUTEOUT NC NC
NC NC VCC1 VCC2 AFCFIL MUTEDET NC NC
IC5003 M52306FP (SYNC DETECTOR)
R5022 47K
R5028 47K
Q5006 2SB1218ARS (S-VIDEO) (L:ON)
C5027 0.1
C5032 1
C5034 0.01
C5033 1/50V
R5029 10K
C5028 47/6.3V
R5035 10K
R5041 4700
R5040 680K

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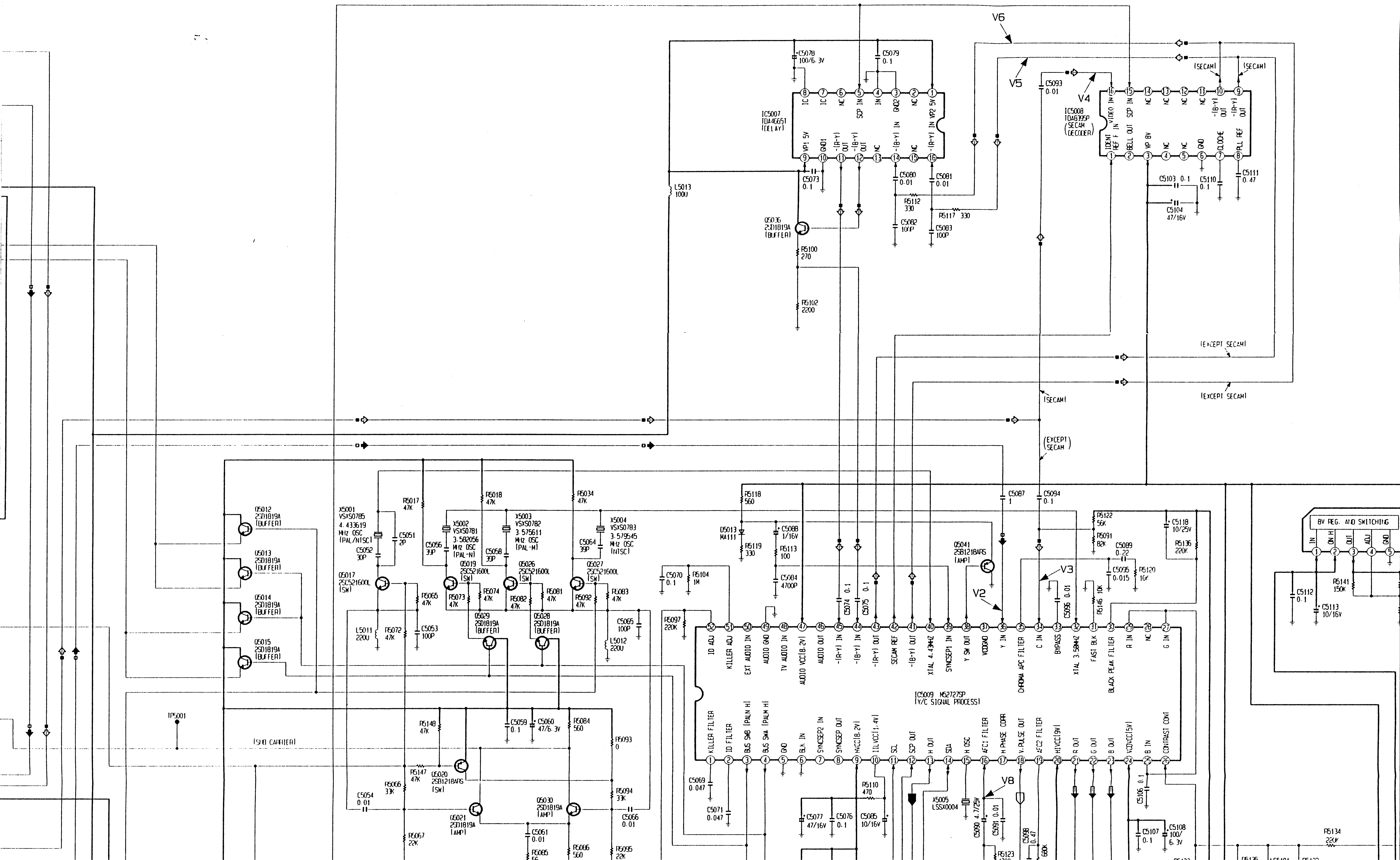
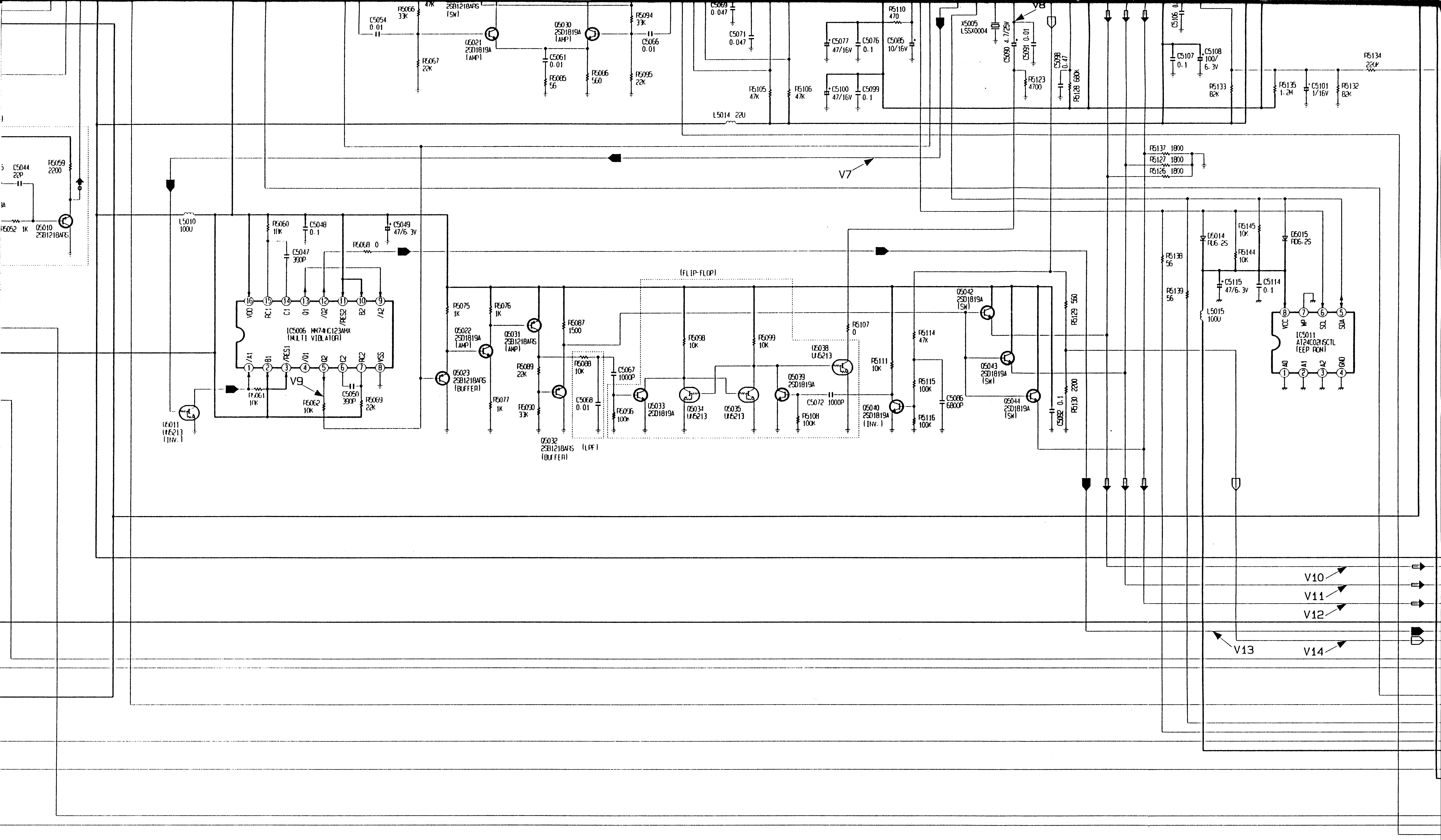
◀■ VIDEO SIGNAL ◀□ LUMINANCE SIGNAL ◁■ CHROMINANCE SIGNAL ◁ RGB(VIDEO) SIGNAL ◁▥ AUDIO SIGNAL ◀ H-SYNC SIGNAL ◁ V-SYNC SIGNAL


IC5007
TDA4661
(DELAY)
IC
NC
SCP IN
IN
GND2
VP2 5V
VP1 5V
GND1
-(R-Y) OUT
-(B-Y) OUT
-(B-Y) IN
-(R-Y) IN
C5078 100/6.3V
C5079 0.1
C5073 0.1
C5080 0.01
C5081 0.01
R5112 330
R5117 330
C5082 100P
C5083 100P
L5013 100U
Q5036 2SD1819A (BUFFER)
R5100 270
R5102 2200
V6
V5
V4
C5093 0.01
IC5008
TDA8395P
(SECAM DECODER)
VIDEO IN
SCP IN
IDENT REF F IN
BELL OUT
VP 8V
GND
CLOCK
PLL REF
-(B-Y) OUT
-(R-Y) OUT
(SECAM)
C5103 0.1
C5110 0.1
C5111 0.47
C5104 47/16V
(EXCEPT SECAM)
(SECAM)
(EXCEPT SECAM)
Q5012 2SD1819A (BUFFER)
Q5013 2SD1819A (BUFFER)
Q5014 2SD1819A (BUFFER)
Q5015 2SD1819A (BUFFER)
X5001 VSXS0785 4.433619 MHz OSC (PAL/NTSC)
C5052 30P
C5051 2P
R5017 47K
X5002 VSXS0781 3.582056 MHz OSC (PAL-N)
C5056 39P
R5018 47K
X5003 VSXS0782 3.575611 MHz OSC (PAL-M)
C5058 39P
R5034 47K
X5004 VSXS0783 3.579545 MHz OSC (NTSC)
C5064 39P
Q5017 2SC5216000L (SW)
Q5019 2SC5216000L (SW)
Q5026 2SC5216000L (SW)
Q5027 2SC5216000L (SW)
R5065 47K
R5073 47K
R5074 47K
R5082 47K
R5081 47K
R5092 47K
R5083 47K
Q5029 2SD1819A (BUFFER)
Q5028 2SD1819A (BUFFER)
L5011 220U
R5072 47K
C5053 100P
C5065 100P
L5012 220U
TP5001
(SUB CARRIER)
R5148 47K
R5147 47K
Q5020 2SB1218ARS (SW)
R5066 33K
C5054 0.01
Q5021 2SD1819A (AMP)
Q5030 2SD1819A (AMP)
C5059 0.1
C5060 47/6.3V
R5084 560
R5093 0
R5094 33K
C5066 0.01
C5061 0.01
R5067 22K
R5085 56
R5086 560
R5095 22K
R5118 560
D5013 MA111
R5119 330
C5088 1/16V
R5113 100
C5084 4700P
C5070 0.1
R5104 1M
R5097 220K
C5074 0.1
C5075 0.1
Q5041 2SB1218ARS (AMP)
C5087 1
C5094 0.1
V2
V3
R5122 56K
R5091 82K
C5089 0.22
C5095 0.015
R5120 10K
C5096 0.01
R5146 10K
C5118 10/25V
R5136 220K
IC5009 M52727SP
(Y/C SIGNAL PROCESS)
ID ADJ
KILLER ADJ
EXT AUDIO IN
AUDIO GND
TV AUDIO IN
AUDIO VCC(8.2V)
AUDIO OUT
-(R-Y) IN
-(B-Y) IN
-(R-Y) OUT
SECAM REF
-(B-Y) OUT
XTAL 4.43MHZ
SYNCSEP1 IN
Y SW OUT
VCCGND
Y IN
CHROMA APC FILTER
C IN
BYPASS
XTAL 3.58MHZ
FAST BLK
BLACK PEAK FILTER
R IN
NC
G IN
KILLER FILTER
ID FILTER
BUS SWB (PALN H)
BUS SWA (PALM H)
GND
BLK IN
SYNCSEP2 IN
SYNCSEP OUT
HVCC(8.2V)
I2LVCC(1.4V)
SCL
SCP OUT
H OUT
SDA
H OSC
AFC1 FILTER
H PHASE CORR
V.PULSE OUT
AFC2 FILTER
HIVCC(9V)
R OUT
G OUT
B OUT
VCDVCC(5V)
B IN
CONTRAST CONT
C5069 0.047
C5071 0.047
R5110 470
C5077 47/16V
C5076 0.1
C5085 10/16V
X5005 LSSX0004
C5090 4.7/25V
C5091 0.01
V8
C5098 0.47
R5123
C5106 0.1
C5107 0.1
C5108 100/6.3V
8V REG. AND SWITCHING
IN
ON H
OUT
ADJ
GND
C5112 0.1
C5113 10/16V
R5141 150K
R5134 220K


IC5006 MM74HC123AMX
(MULTI VIBLATOR)
VDD
RC1
C1
Q1
/Q2
/RES2
B2
/A2
/A1
B1
/RES1
/Q1
Q2
C2
RC2
VSS
IC5011 AT24C021SCTL
(EEP ROM)
VCC
WP
SCL
SDA
A0
A1
A2
GND
(FLIP-FLOP)
(LPF)
Q5010 2SB1218ARS
Q5011 UN5213 (INV.)
Q5021 2SD1819A (AMP)
Q5030 2SD1819A (AMP)
Q5022 2SD1819A (AMP)
Q5023 2SB1218ARS (BUFFER)
Q5031 2SB1218ARS (AMP)
Q5032 2SB1218ARS (BUFFER)
Q5033 2SD1819A
Q5034 UN5213
Q5035 UN5213
Q5038 UN5213
Q5039 2SD1819A
Q5040 2SD1819A (INV.)
Q5042 2SD1819A (SW)
Q5043 2SD1819A (SW)
Q5044 2SD1819A (SW)
D5014 MA6.2S
D5015 MA6.2S
X5005 LSSX0004
L5010 100U
L5014 22U
L5015 100U
C5044 22P
C5047 390P
C5048 0.1
C5049 47/6.3V
C5050 390P
C5054 0.01
C5061 0.01
C5066 0.01
C5067 1000P
C5068 0.01
C5069 0.047
C5071 0.047
C5072 1000P
C5076 0.1
C5077 47/16V
C5085 10/16V
C5086 6800P
C5090 4.7/25V
C5091 0.01
C5092 0.1
C5098 0.47
C5099 0.1
C5100 47/16V
C5101 1/16V
C5106
C5107 0.1
C5108 100/6.3V
C5114 0.1
C5115 47/6.3V
R5052 1K
R5059 2200
R5060 10K
R5061 10K
R5062 10K
R5066 33K
R5067 22K
R5068 0
R5069 22K
R5075 1K
R5076 1K
R5077 1K
R5085 56
R5086 560
R5087 1500
R5088 10K
R5089 22K
R5090 33K
R5094 33K
R5095 22K
R5096 100K
R5098 10K
R5099 10K
R5105 47K
R5106 47K
R5107 0
R5108 100K
R5110 470
R5111 10K
R5114 47K
R5115 100K
R5116 100K
R5123 4700
R5126 1800
R5127 1800
R5128 680K
R5129 560
R5130 2200
R5132 82K
R5133 82K
R5134 220K
R5135 1.2M
R5137 1800
R5138 56
R5139 56
R5144 10K
R5145 10K
V7
V8
V9
V10
V11
V12
V13
V14

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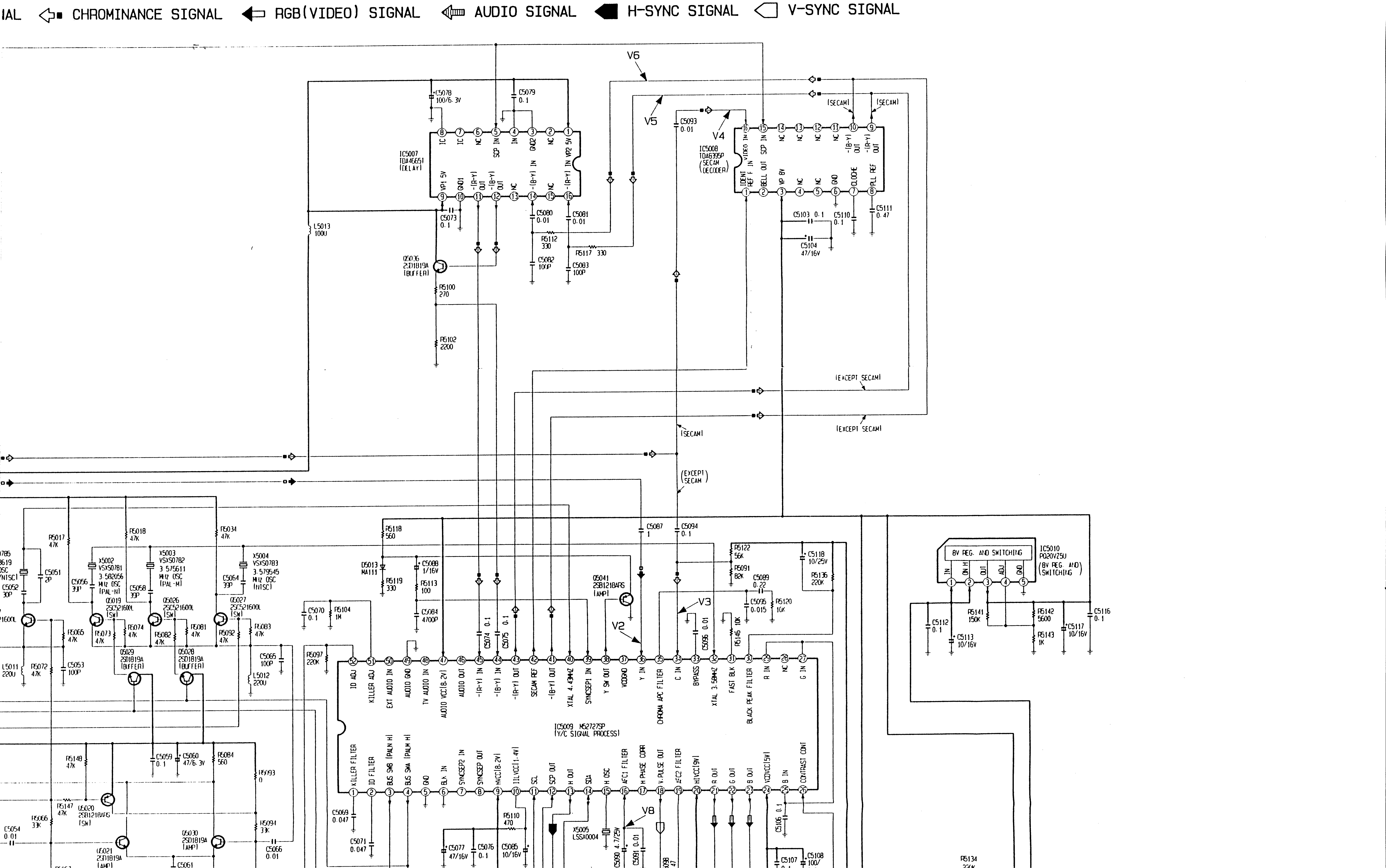
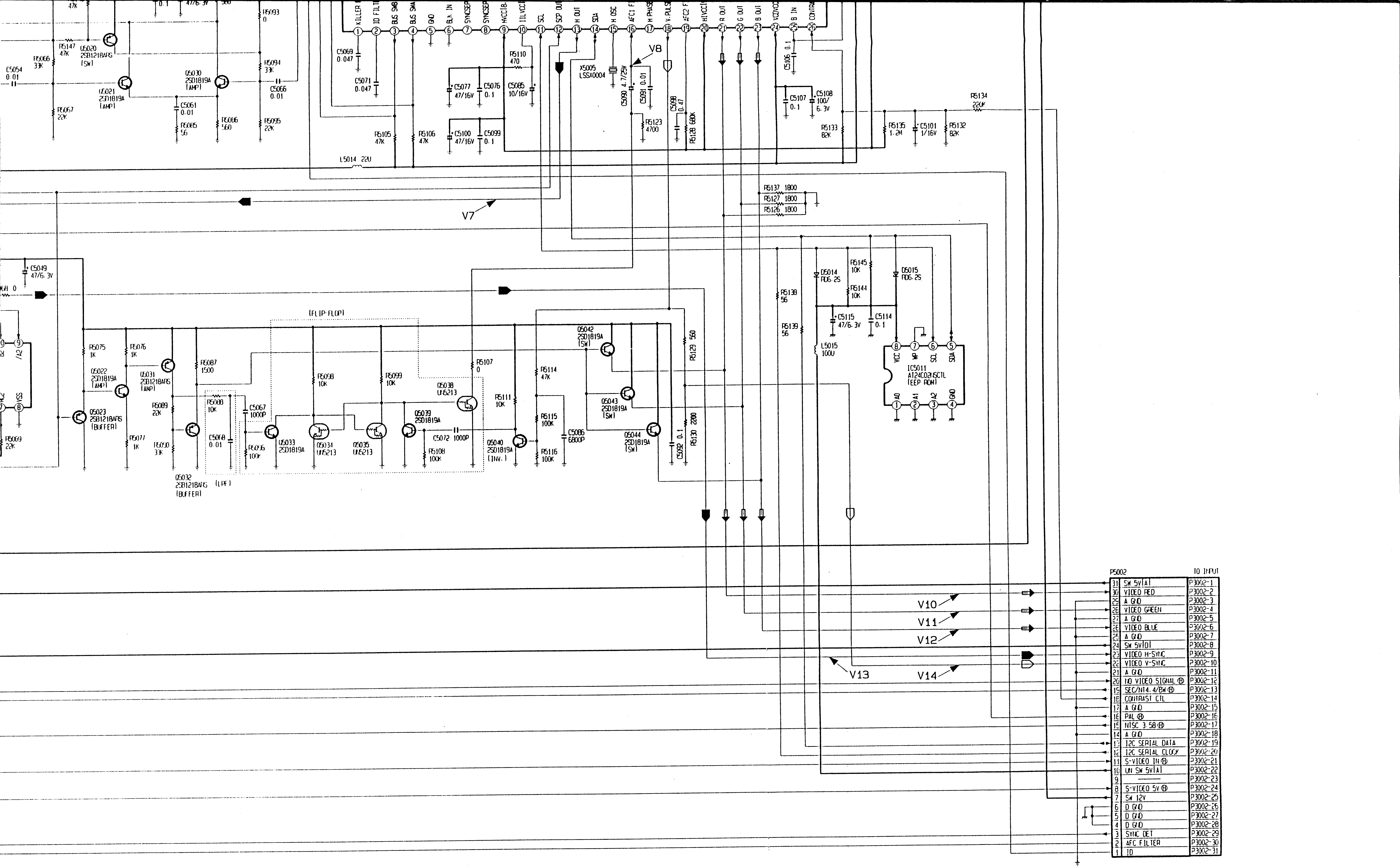

IAL
CHROMINANCE SIGNAL
RGB(VIDEO) SIGNAL
AUDIO SIGNAL
H-SYNC SIGNAL
V-SYNC SIGNAL
V6
V5
V4
V3
V2
V8
IC5007 TDA4665T (DELAY)
C5078 100/6.3V
C5079 0.1
IC
NC
SCP IN
IN
GND2
VP2 5V
VP1 5V
GND1
-(R-Y) OUT
-(B-Y) OUT
-(B-Y) IN
-(R-Y) IN
C5073 0.1
C5080 0.01
C5081 0.01
R5112 330
R5117 330
C5082 100P
C5083 100P
L5013 100U
Q5036 2SD1819A (BUFFER)
R5100 270
R5102 2200
C5093 0.01
IC5008 TDA8395P (SECAM DECODER)
VIDEO IN
(SECAM)
IDENT REF F IN
BELL OUT
VP 8V
GND
CLOCHE
PLL REF
C5103 0.1
C5110 0.1
C5111 0.47
C5104 47/16V
(EXCEPT SECAM)
(SECAM)
(EXCEPT SECAM)
R5017 47K
R5018 47K
R5034 47K
X5002 VSX50781 3.582056 MHz OSC (PAL-N)
X5003 VSX50782 3.575611 MHz OSC (PAL-M)
X5004 VSX50783 3.579545 MHz OSC (NTSC)
C5051 2P
C5052 30P
C5056 39P
C5058 39P
C5064 39P
Q5019 2SC5216001 (SW)
Q5026 2SC5216001 (SW)
Q5027 2SC5216001 (SW)
R5065 47K
R5073 47K
R5074 47K
R5082 47K
R5081 47K
R5092 47K
R5083 47K
L5011 220U
R5072 47K
C5053 100P
Q5029 2SD1819A (BUFFER)
Q5028 2SD1819A (BUFFER)
C5065 100P
L5012 220U
R5118 560
D5013 MA111
C5088 1/16V
R5119 330
R5113 100
C5084 4700P
C5070 0.1
R5104 1M
R5097 220K
Q5041 2SB1218ARS (AMP)
C5087 1
C5094 0.1
R5122 56K
R5091 82K
C5118 10/25V
R5136 220K
C5089 0.22
C5095 0.015
R5120 10K
C5096 0.01
R5145 10K
C5074 0.1
C5075 0.1
ID ADJ
KILLER ADJ
EXT AUDIO IN
AUDIO GND
TV AUDIO IN
AUDIO VCC(8.2V)
AUDIO OUT
-(R-Y) IN
-(B-Y) IN
-(R-Y) OUT
SECAM REF
-(B-Y) OUT
XTAL 4.43MHz
SYNCSEP1 IN
Y SW OUT
VCCGND
Y IN
CHROMA APC FILTER
C IN
BYPASS
XTAL 3.58MHz
FAST BLK
BLACK PEAK FILTER
R IN
NC
G IN
IC5009 M52727SP (Y/C SIGNAL PROCESS)
KILLER FILTER
ID FILTER
BUS SWB (PALM H)
BUS SWA (PALM H)
GND
BLK IN
SYNCSEP2 IN
SYNCSEP OUT
HVCC(8.2V)
IILVCC(1.4V)
SCL
SCP OUT
H OUT
SDA
H OSC
AFC1 FILTER
H PHASE CORR
V. PULSE OUT
AFC2 FILTER
HIVCC(9V)
R OUT
G OUT
B OUT
VCCVCC(5V)
B IN
CONTRAST CONT
IC5010 PQ20VZ5U (8V REG. AND SWITCHING)
8V REG. AND SWITCHING
IN
ON H
OUT
ADJ
GND
C5112 0.1
C5113 10/16V
R5141 150K
R5142 5600
R5143 1K
C5117 10/16V
C5116 0.1
R5148 47K
R5147 47K
Q5020 2SB1218ARS (SW)
R5066 33K
C5054 0.01
Q5021 2SD1819A (AMP)
Q5030 2SD1819A (AMP)
C5059 0.1
C5060 47/6.3V
R5084 560
R5093 0
R5094 33K
C5066 0.01
C5061
C5069 0.047
C5071 0.047
R5110 470
C5077 47/16V
C5076 0.1
C5085 10/16V
X5005 LSSX0004
C5090 4.7/25V
C5091 0.01
C5106 0.1
C5107
C5108 100/
R5134 220K


KILLER
ID FILT
BUS SWB
BUS SWA
GND
BLK IN
SYNCSEP
SYNCSEP
HVCC1B
IILVCC
SCL
SCP OUT
H OUT
SDA
H OSC
AFC1 F
H PHASE
V. PULSE
AFC2 F
HIVCC1
R OUT
G OUT
B OUT
VCDVCC
B IN
CONTR
C5069 0.047
C5071 0.047
C5077 47/16V
C5076 0.1
C5085 10/16V
R5110 470
X5005 LSSX0004
C5090 4.7/25V
C5091 0.01
V8
R5123 4700
C5098 0.47
R5128 680K
C5106 0.1
C5107 0.1
C5108 100/6.3V
R5133 82K
R5134 22K
R5135 1.2M
C5101 1/16V
R5132 82K
C5100 47/16V
C5099 0.1
R5105 47K
R5106 47K
L5014 22U
R5147 47K
Q5020 2SB1121BARS (SW)
R5066 33K
C5054 0.01
Q5021 2SD1819A (AMP)
Q5030 2SD1819A (AMP)
R5093 0
R5094 33K
C5066 0.01
C5061 0.01
R5067 22K
R5065 56
R5066 560
R5095 22K
R5137 1800
R5127 1800
R5126 1800
V7
C5049 47/6.3V
R5075 1K
R5076 1K
Q5022 2SD1819A (AMP)
Q5031 2SB1121BARS (AMP)
R5087 1500
R5089 22K
R5090 33K
R5077 1K
Q5023 2SB1121BARS (BUFFER)
R5069 22K
Q5032 2SB1121BARS (BUFFER)
R5088 10K
C5068 0.01
(LPF)
C5067 1000P
(FLIP-FLOP)
R5098 10K
R5099 10K
R5096 100K
Q5033 2SD1819A
Q5034 UN5213
Q5035 UN5213
Q5038 UN5213
Q5039 2SD1819A
C5072 1000P
R5108 100K
R5107 0
R5111 10K
Q5040 2SD1819A (INV.)
R5114 47K
R5115 100K
R5116 100K
C5086 6800P
Q5042 2SD1819A (SW)
Q5043 2SD1819A (SW)
Q5044 2SD1819A (SW)
R5129 560
R5130 2200
C5092 0.1
R5138 56
R5139 56
L5015 100U
D5014 RD6.2S
R5145 10K
R5144 10K
D5015 RD6.2S
C5115 47/6.3V
C5114 0.1
IC5011 AT24C02USCTL (EEP ROM)
VCC
WP
SCL
SDA
A0
A1
A2
GND
V10
V11
V12
V13
V14
P5002
IO INPUT
31 SW 5V(A) P3002-1
30 VIDEO RED P3002-2
29 A GND P3002-3
28 VIDEO GREEN P3002-4
27 A GND P3002-5
26 VIDEO BLUE P3002-6
25 A GND P3002-7
24 SW 5V(D) P3002-8
23 VIDEO H-SYNC P3002-9
22 VIDEO V-SYNC P3002-10
21 A GND P3002-11
20 NO VIDEO SIGNAL Ⓗ P3002-12
19 SEC/NT4.4/BW Ⓗ P3002-13
18 CONTRAST CTL P3002-14
17 A GND P3002-15
16 PAL Ⓗ P3002-16
15 NTSC 3.58 Ⓗ P3002-17
14 A GND P3002-18
13 I2C SERIAL DATA P3002-19
12 I2C SERIAL CLOCK P3002-20
11 S-VIDEO IN Ⓗ P3002-21
10 UN SW 5V(A) P3002-22
9 ——— P3002-23
8 S-VIDEO 5V Ⓗ P3002-24
7 SW 12V P3002-25
6 D GND P3002-26
5 D GND P3002-27
4 D GND P3002-28
3 SYNC DET P3002-29
2 AFC FILTER P3002-30
1 IO P3002-31

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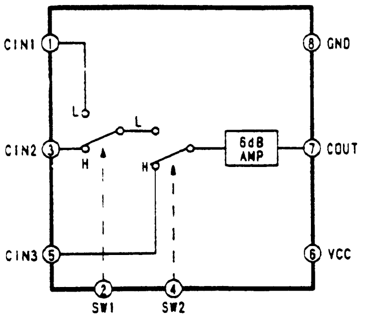
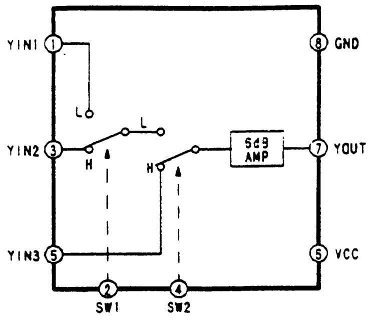
PJL802

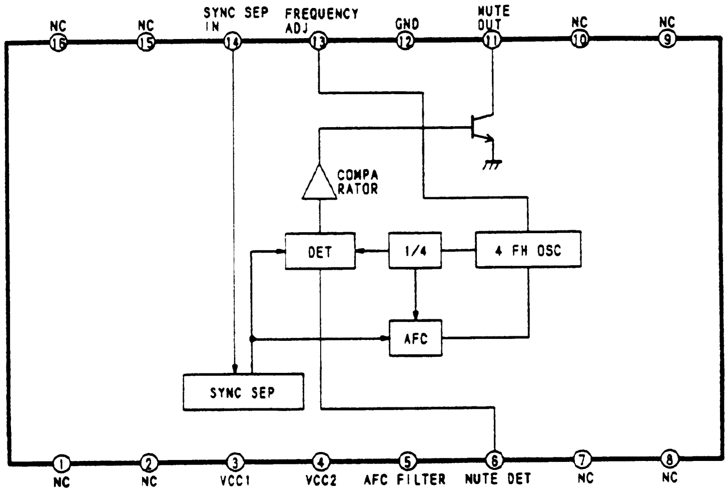
IC5001
(NJM2234M)


CIN1
1
L
L
CIN2
3
H
H
6dB AMP
7
COUT
8
GND
CIN3
5
6
VCC
2
SW1
4
SW2

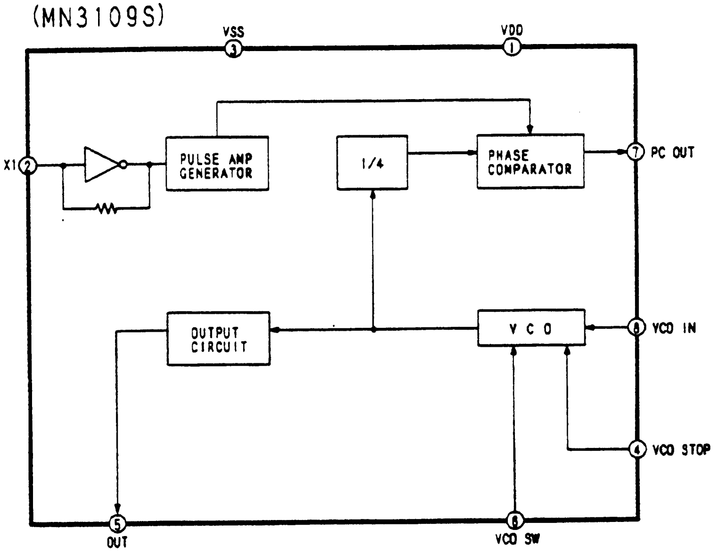
IC5002
(NJM2246M)


YIN1
1
L
L
YIN2
3
H
H
6dB AMP
7
YOUT
8
GND
YIN3
5
5
VCC
2
SW1
4
SW2

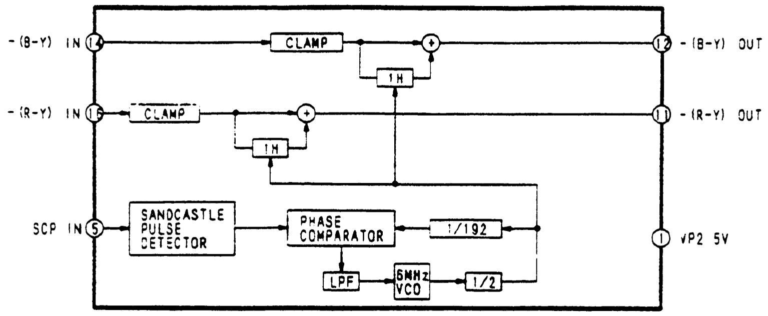
IC5003
(M52306FP)


NC
16
NC
15
SYNC SEP IN
14
FREQUENCY ADJ
13
GND
12
MUTE OUT
11
NC
10
NC
9
COMPA RATOR
DET
1/4
4 FH OSC
AFC
SYNC SEP
1
NC
2
NC
3
VCC1
4
VCC2
5
AFC FILTER
6
MUTE DET
7
NC
8
NC

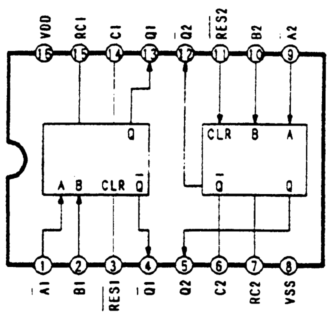
IC5005
(MN3109S)


VSS
3
VDD
1
X1
2
PULSE AMP GENERATOR
1/4
PHASE COMPARATOR
7
PC OUT
OUTPUT CIRCUIT
V C O
8
VCO IN
4
VCO STOP
5
OUT
6
VCO SW

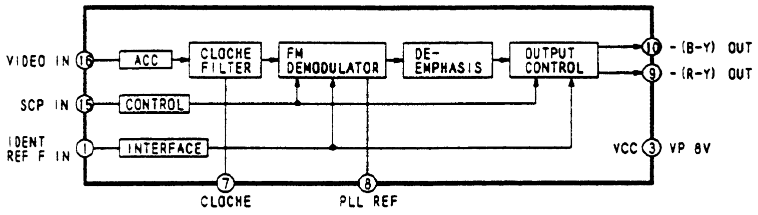
IC5007
(TDA4665T)


-(B-Y) IN 14
-(R-Y) IN 15
SCP IN 5
CLAMP
1H
CLAMP
1H
SANDCASTLE PULSE DETECTOR
PHASE COMPARATOR
1/192
LPF
6MHz VCO
1/2
12 -(B-Y) OUT
11 -(R-Y) OUT
1 VP2 5V

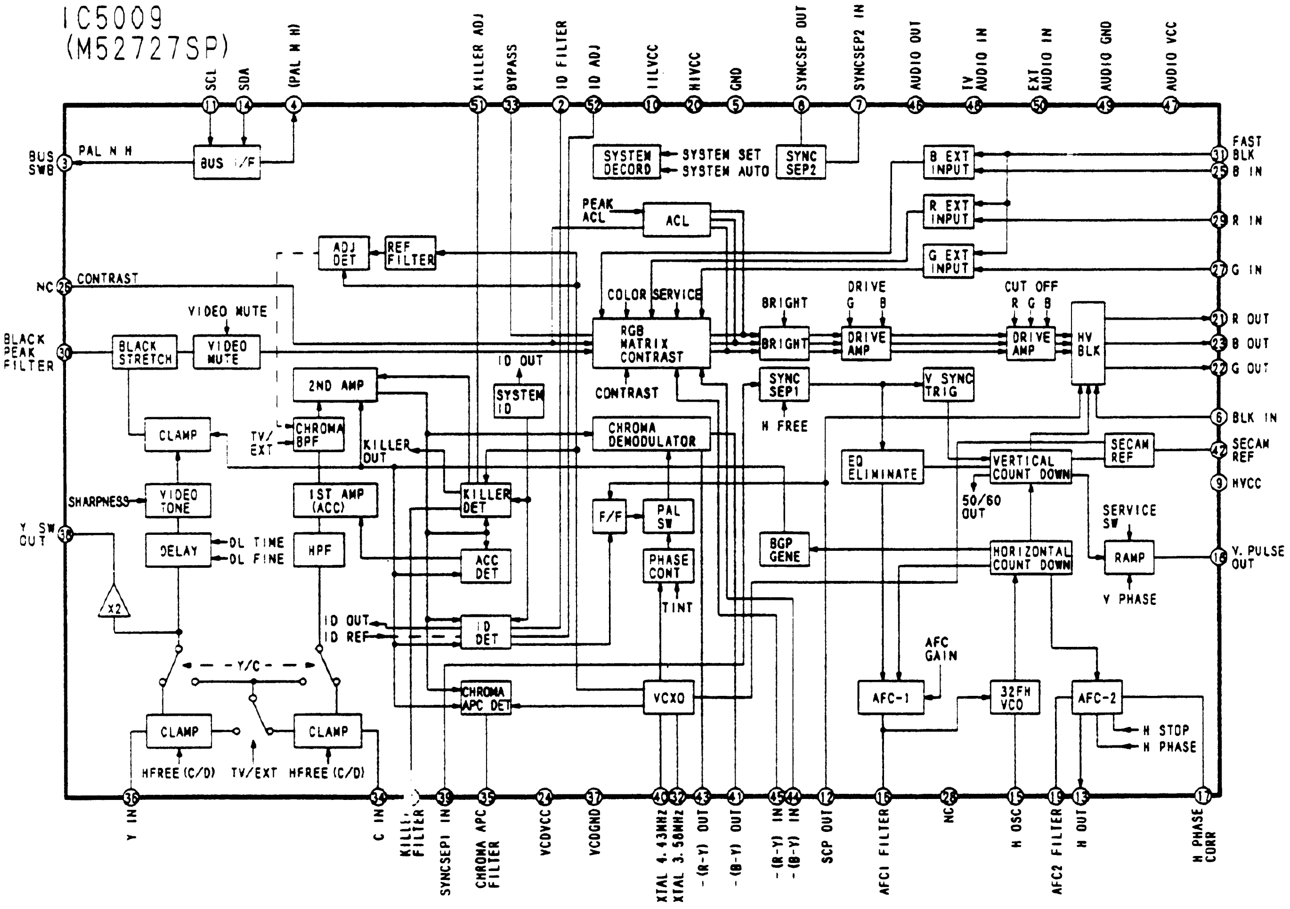
IC5006
(MM74HC123AMX)


VDD 16
RC1 15
C1 14
Q1 13
Q̄2 12
R̄ES2 11
B2 10
A2 9
Q
A B CLR Q̄
CLR B A
Q̄ Q
1 A1
2 B1
3 R̄ES1
4 Q̄1
5 Q2
6 C2
7 RC2
8 VSS

IC5008
(TDA8395P)


VIDEO IN 16
SCP IN 15
IDENT REF F IN 1
ACC
CLOCHE FILTER
FM DEMODULATOR
DE-EMPHASIS
OUTPUT CONTROL
CONTROL
INTERFACE
10 -(B-Y) OUT
9 -(R-Y) OUT
VCC 3 VP 8V
7 CLOCHE
8 PLL REF

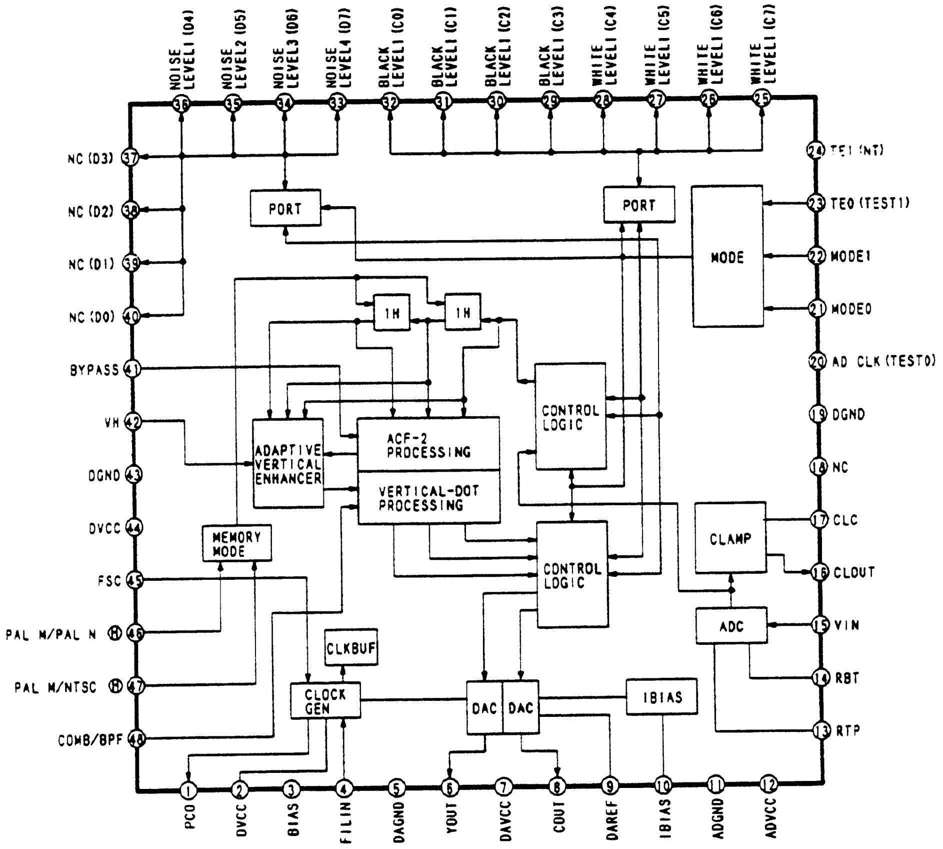
IC5009
(M52727SP)


SCL 11
SDA 14
(PAL N H) 4
KILLER ADJ 51
BYPASS 33
ID FILTER 2
ID ADJ 52
IILVCC 10
HIVCC 20
GND 5
SYNCSEP OUT 8
SYNCSEP2 IN 7
AUDIO OUT 46
TV AUDIO IN 48
EXT AUDIO IN 50
AUDIO GND 49
AUDIO VCC 47
BUS SWB 3
PAL N H
BUS I/F
SYSTEM DECORD
SYSTEM SET
SYSTEM AUTO
SYNC SEP2
PEAK ACL
ACL
ADJ DET
REF FILTER
NC 26
CONTRAST
VIDEO MUTE
BLACK PEAK FILTER 30
BLACK STRETCH
VIDEO MUTE
COLOR
SERVICE
RGB MATRIX CONTRAST
CONTRAST
ID OUT
SYSTEM ID
2ND AMP
CLAMP
TV/EXT
CHROMA BPF
KILLER OUT
CHROMA DEMODULATOR
SHARPNESS
VIDEO TONE
1ST AMP (ACC)
KILLER DET
F/F
PAL SW
Y SW OUT 38
DELAY
DL TIME
DL FINE
HPF
ACC DET
PHASE CONT
TINT
X2
ID OUT
ID REF
ID DET
Y/C
CHROMA APC DET
VCXO
CLAMP
CLAMP
HFREE (C/D)
TV/EXT
HFREE (C/D)
B EXT INPUT
R EXT INPUT
G EXT INPUT
BRIGHT
BRIGHT
DRIVE G B
DRIVE AMP
CUT OFF R G B
DRIVE AMP
HV BLK
SYNC SEP1
H FREE
V SYNC TRIG
EQ ELIMINATE
VERTICAL COUNT DOWN
50/60 OUT
SECAM REF
SERVICE SW
BGP GENE
HORIZONTAL COUNT DOWN
RAMP
V PHASE
AFC GAIN
AFC-1
32FH VCO
AFC-2
H STOP
H PHASE
31 FAST BLK
25 B IN
29 R IN
27 G IN
21 R OUT
23 B OUT
22 G OUT
6 BLK IN
42 SECAM REF
9 HVCC
16 V. PULSE OUT
36 Y IN
34 C IN
KILLER FILTER
39 SYNCSEP1 IN
35 CHROMA APC FILTER
24 VCOVCC
37 VCOGND
40 XTAL 4.43MHz
32 XTAL 3.58MHz
43 -(R-Y) OUT
41 -(B-Y) OUT
45 -(R-Y) IN
44 -(B-Y) IN
12 SCP OUT
16 AFC1 FILTER
28 NC
15 H OSC
19 AFC2 FILTER
13 H OUT
17 H PHASE CORR

VOLTAGE CHART OF VIDEO SCHEMATIC DIAGRAM

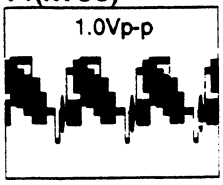
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
IC5001		**IC5004**		38	0	IC5007		**IC5009**		38	2.4	Q5001		Q5010		Q5021		Q5032		Q5041		**P5001**	
1	4.9	1	0	39	0	1	4.9	1	3.8	39	2.5	E	7.9	E	1.8	E	1.2	E	2.6	E	2.9	1	0
2	0	2	4.9	40	0	2	0	2	2.3	40	3.1	C	4.0	C	0	C	3.7	C	0	C	0	2	0
3	4.9	3	0.1	41	4.0	3	0	3	0	41	2.8	B	7.3	B	1.1	B	0	B	2.1	B	2.4	3	0
4	0	4	0	42	0.1	4	0	4	0	42	1.4	**Q5002**		Q5011		**Q5022**		Q5033		**Q5042**		**P5002**	
5	4.9	5	0	43	0	5	0.9	5	0	43	2.9	E	1.6	E	0	E	0.9	E	0	E	3.6	1	1.8
6	7.9	6	0.8	44	5.0	6	0	6	0	44	2.8	C	7.3	C	2.4	C	4.4	C	4.1	C	4.8	2	2.3
7	4.2	7	4.8	45	2.4	7	0.5	7	6.3	45	2.9	B	2.2	B	2.5	B	1.5	B	0	B	2.6	3	2.8
8	0	8	1.0	46	0	8	0	8	0.3	46	3.9	**Q5003**		Q5012		**Q5023**		Q5034		Q5043		4	0
IC5002		9	1.5	47	4.4	9	4.9	9	7.9	47	7.9	E	4.3	E	4.5	E	1.5	E	0	E	3.6	5	0
1	3.7	10	1.2	48	4.0	10	0	10	1.4	48	3.0	C	7.9	C	4.8	C	0	C	4.0	C	4.8	6	0
2	0	11	0	**IC5005**		11	2.9	11	5.1	49	0	B	5.0	B	5.0	B	0.9	B	0.1	B	2.6	7	11.7
3	3.9	12	4.9	1	4.9	12	2.9	12	1.0	50	3.0	**Q5004**		Q5013		**Q5026**		**Q5035**		**Q5044**		8	0
4	0	13	2.4	2	2.1	13	0	13	2.6	51	3.2	E	3.3	E	4.5	E	0	E	0	E	3.7	9	5.1
5	3.7	14	0.5	3	0	14	1.4	14	5.1	52	1.8	C	7.9	C	4.8	C	4.8	C	0.1	C	4.8	10	5.1
6	7.9	15	1.2	4	0	15	0	15	5.1	**IC5010**		B	4.0	B	0	B	0	B	4.0	B	2.6	11	0
7	3.5	16	1.2	5	2.0	16	1.4	16	5.6	1	11.7	**Q5005**		**Q5014**		**Q5027**		**Q5036**				12	5.1
8	0	17	2.6	6	0	**IC5008**		17	2.7	2	11.7	E	2.4	E	0	E	0	E	2.3			13	5.1
IC5003		18	0	7	2.5	1	1.5	18	5.5	3	8.0	C	0	C	4.8	C	0	C	4.9			14	0
1	0	19	0	8	2.5	2	1.1	19	4.2	4	1.3	B	1.8	B	0	B	0.7	B	2.9			15	5.1
2	0	20	0	**IC5006**		3	7.9	20	7.9	5	0	**Q5006**		**Q5015**		**Q5028**		Q5037				16	0
3	4.8	21	5.0	1	2.4	4	0	21	3.6	**IC5011**		E	4.8	E	0	E	0	E	0			17	0
4	4.8	22	0	2	4.8	5	0	22	3.6	1	0	C	0	C	4.8	C	4.8	C	0.6			18	1.3
5	2.3	23	0	3	4.8	6	0	23	3.7	2	0	B	4.8	B	0	B	0	B	0			19	0
6	4.3	24	0	4	4.2	7	3.8	24	4.8	3	0	**Q5007**		Q5017		**Q5029**		**Q5038**				20	0
7	0	25	5.0	5	0.7	8	4.4	25	2.7	4	0	E	3.2	E	0	E	0	E	0			21	0
8	0	26	0	6	0	9	2.9	26	2.4	5	5.1	C	1.7	C	0	C	4.8	C	0			22	4.4
9	0	27	0	7	4.0	10	2.8	27	2.7	6	5.1	B	2.6	B	0	B	0	B	0			23	4.1
10	0	28	0	8	0	11	0	28	0	7	0	**Q5008**		Q5019		**Q5030**		**Q5039**				24	5.0
11	0	29	5.0	9	0.6	12	0	29	2.7	8	5.1	E	1.1	E	0	E	1.1	E	0			25	0
12	0	30	0	10	4.8	13	0	30	3.0			C	6.8	C	4.8	C	3.7	C	0			26	3.7
13	3.0	31	0	11	4.8	14	0	31	0			B	1.7	B	0	B	1.8	B	0			27	0
14	3.0	32	0	12	4.1	15	0.9	32	3.1			**Q5009**		**Q5020**		**Q5031**		**Q5040**				28	3.6
15	0	33	5.0	13	0.6	16	0	33	2.0			E	2.6	E	4.8	E	4.8	E	0			29	0
16	0	34	0	14	0			34	2.8			C	0	C	4.8	C	3.5	C	0.1			30	3.6
		35	0	15	4.2			35	2.9			B	2.0	B	4.2	B	4.3	B	0.6			31	5.0
		36	0	16	4.8			36	2.3														
		37	0					37	0													**TP5001**	3.6

IC5004
(MC141627FT)

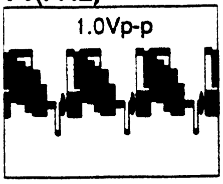

NOISE LEVEL1 (D4)
NOISE LEVEL2 (D5)
NOISE LEVEL3 (D6)
NOISE LEVEL4 (D7)
BLACK LEVEL1 (C0)
BLACK LEVEL1 (C1)
BLACK LEVEL1 (C2)
BLACK LEVEL1 (C3)
WHITE LEVEL1 (C4)
WHITE LEVEL1 (C5)
WHITE LEVEL1 (C6)
WHITE LEVEL1 (C7)
36
35
34
33
32
31
30
29
28
27
26
25
24 TEI (NT)
23 TEO (TEST1)
22 MODE1
21 MODE0
20 AD CLK (TESTO)
19 DGND
18 NC
17 CLC
16 CLOUT
15 VIN
14 RBT
13 RTP
NC (D3) 37
NC (D2) 38
NC (D1) 39
NC (D0) 40
BYPASS 41
VH 42
DGND 43
DVCC 44
FSC 45
PAL M/PAL N H 46
PAL M/NTSC H 47
COMB/BPF 48
PORT
PORT
MODE
1H
1H
CONTROL LOGIC
ADAPTIVE VERTICAL ENHANCER
ACF-2 PROCESSING
VERTICAL-DOT PROCESSING
MEMORY MODE
CLAMP
CONTROL LOGIC
ADC
CLKBUF
CLOCK GEN
DAC
DAC
IBIAS
1 PCO
2 DVCC
3 BIAS
4 FILIN
5 DAGND
6 YOUT
7 DAVCC
8 COUT
9 DAREF
10 IBIAS
11 ADGND
12 ADVCC

WAVEFORM OF VIDEO SCHEMATIC DIAGRAM

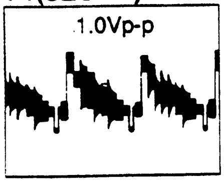
V1(NTSC)



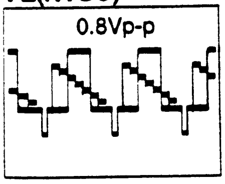
V1(PAL)



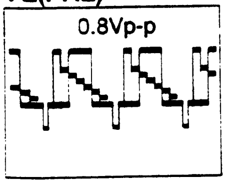
V1(SECAM)



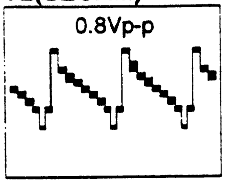
V2(NTSC)



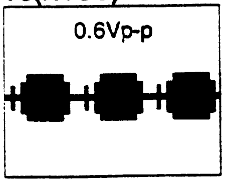
V2(PAL)



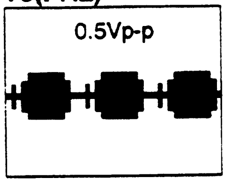
V2(SECAM)



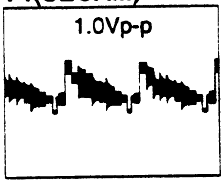
V3(NTSC)



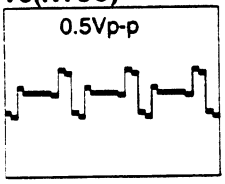
V3(PAL)



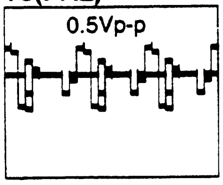
V4(SECAM)



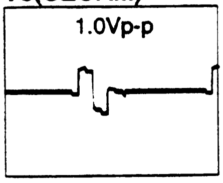
V5(NTSC)



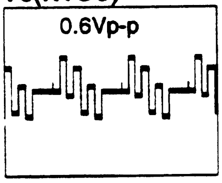
V5(PAL)



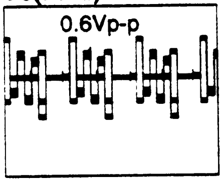
V5(SECAM)



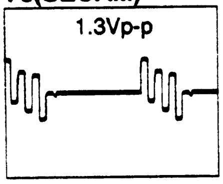
V6(NTSC)



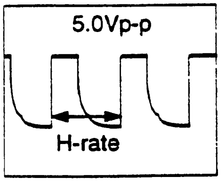
V6(PAL)



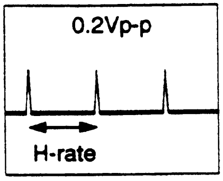
V6(SECAM)



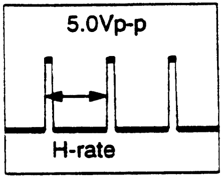
V7



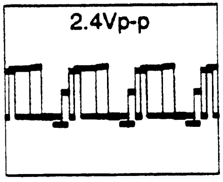
V8



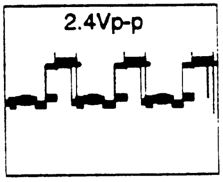
V9



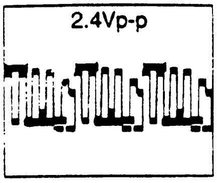
V10



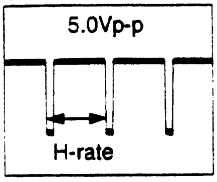
V11



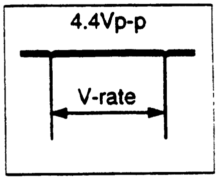
V12



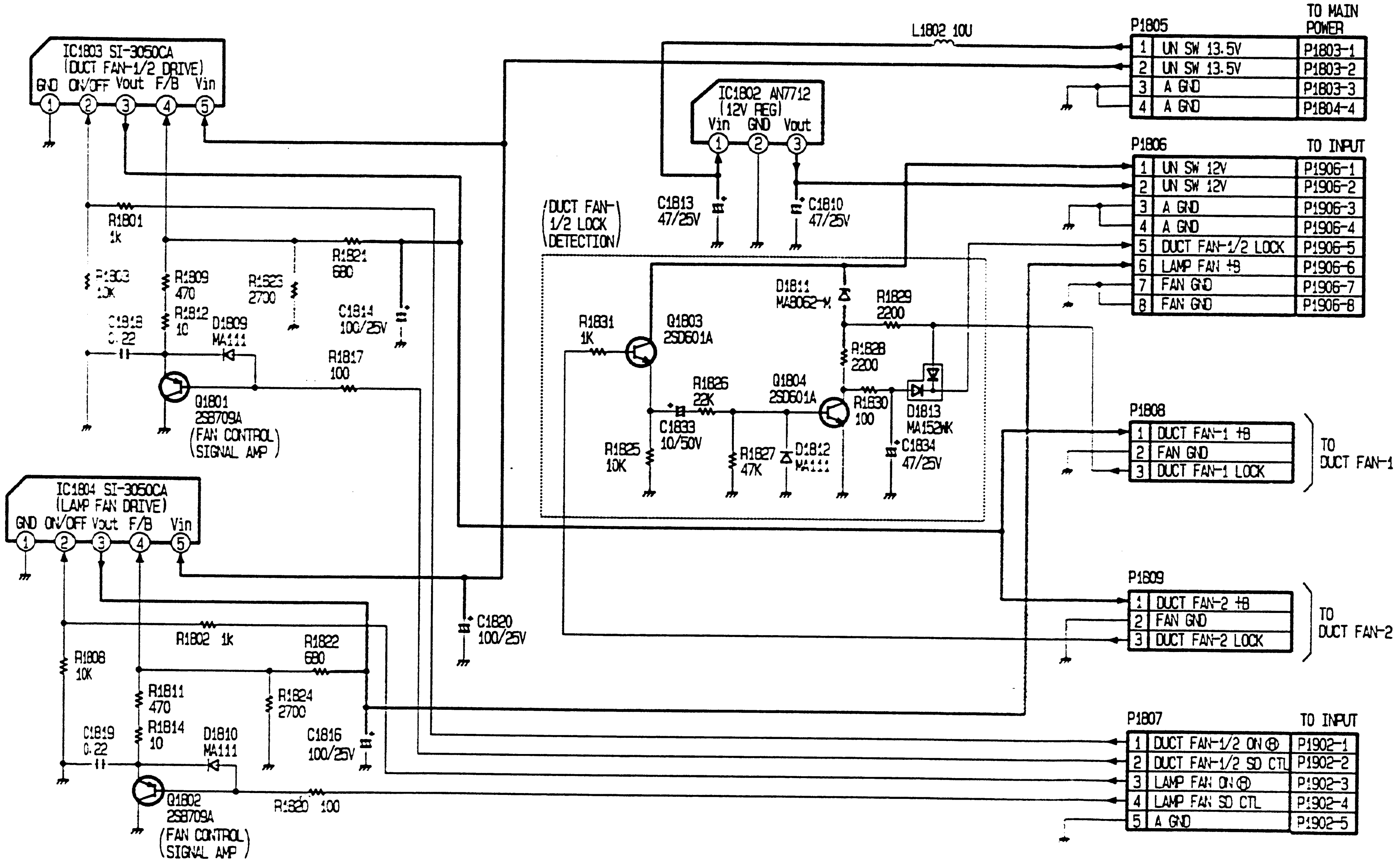
V13



V14



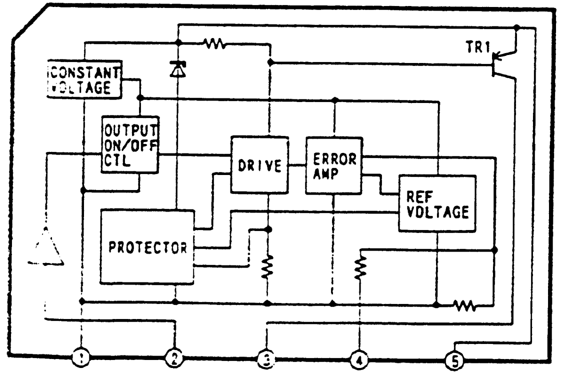
FAN DRIVE SCHEMATIC DIAGRAM


IC1803 SI-3050CA
(DUCT FAN-1/2 DRIVE)
GND ON/OFF Vout F/B Vin
R1801 1k
R1803 10K
R1809 470
R1812 10
R1823 2700
R1821 680
C1814 100/25V
C1818 0.22
D1809 MA111
R1817 100
Q1801 2SB709A
(FAN CONTROL SIGNAL AMP)
IC1804 SI-3050CA
(LAMP FAN DRIVE)
GND ON/OFF Vout F/B Vin
R1808 10K
R1802 1k
R1822 680
R1811 470
R1814 10
R1824 2700
C1819 0.22
D1810 MA111
C1816 100/25V
Q1802 2SB709A
(FAN CONTROL SIGNAL AMP)
R1820 100
C1820 100/25V
L1802 10U
IC1802 AN7712
(12V REG)
Vin GND Vout
C1813 47/25V
C1810 47/25V
(DUCT FAN-1/2 LOCK DETECTION)
D1811 MA8062-M
R1829 2200
R1828 2200
R1831 1K
Q1803 2SD601A
R1826 22K
Q1804 2SD601A
R1830 100
D1813 MA152WK
C1833 10/50V
R1825 10K
R1827 47K
D1812 MA111
C1834 47/25V
P1805
TO MAIN POWER
1 UN SW 13.5V P1803-1
2 UN SW 13.5V P1803-2
3 A GND P1803-3
4 A GND P1804-4
P1806
TO INPUT
1 UN SW 12V P1906-1
2 UN SW 12V P1906-2
3 A GND P1906-3
4 A GND P1906-4
5 DUCT FAN-1/2 LOCK P1906-5
6 LAMP FAN +B P1906-6
7 FAN GND P1906-7
8 FAN GND P1906-8
P1808
1 DUCT FAN-1 +B
2 FAN GND
3 DUCT FAN-1 LOCK
TO DUCT FAN-1
P1809
1 DUCT FAN-2 +B
2 FAN GND
3 DUCT FAN-2 LOCK
TO DUCT FAN-2
P1807
TO INPUT
1 DUCT FAN-1/2 ON ⊕ P1902-1
2 DUCT FAN-1/2 SD CTL P1902-2
3 LAMP FAN ON ⊕ P1902-3
4 LAMP FAN SD CTL P1902-4
5 A GND P1902-5

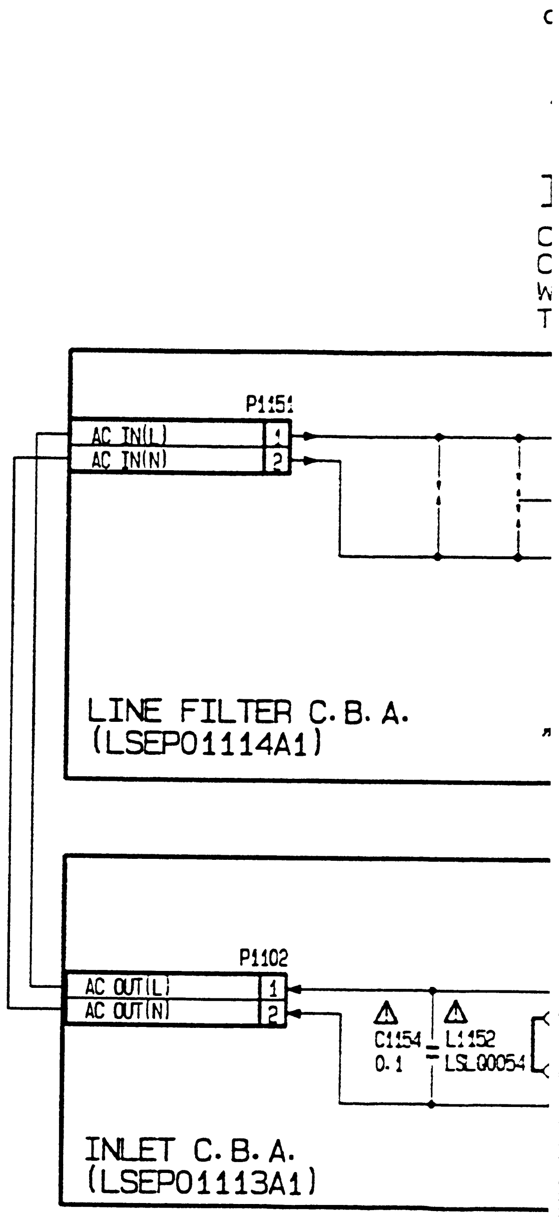
VOLTAGE CHART OF FAN DRIVE SCHEMATIC DIAGRAM

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
IC1802		IC1804		Q1801		Q1804		P1805		P1806		P1807		P1809									
1	14.0	1	0	E	0	E	0	1	14.0	1	11.9	1	4.7	1	11.0								
2	0	2	4.2	C	0	C	0.3	2	14.0	2	11.9	2	1.5	2	0								
3	11.9	3	8.7	B	1.5	B	0.1	3	0	3	0	3	4.6	3	4.8								
IC1803		4	5.0	Q1802				4	0	4	0	4	3.0										
1	0	5	14.0	E	3.6					5	0.1	5	0										
2	4.3			C	0					6	8.8	P1808											
3	11.0			B	3.0					7	0	1	11.0										
4	5.0			Q1803						8	0	2	0										
5	14.0			E	4.9							3	0.1										
				C	11.9																		
				B	4.8																		

IC1803. IC1804
(SI-3050CA)


CONSTANT VOLTAGE
OUTPUT ON/OFF CTL
DRIVE
ERROR AMP
REF VOLTAGE
PROTECTOR
TR1
1
2
3
4
5

INLET/LINE FILTER SCH


P1151
AC IN(L) 1
AC IN(N) 2
LINE FILTER C.B.A.
(LSEP01114A1)
P1102
AC OUT(L) 1
AC OUT(N) 2
C1154 0.1
L1152 LSL00054
INLET C.B.A.
(LSEP01113A1)

Note:
Main Power schematic diagram is not included
Because Main Power C.B.A. is supplied as a u
If necessary, use the power block diagram for

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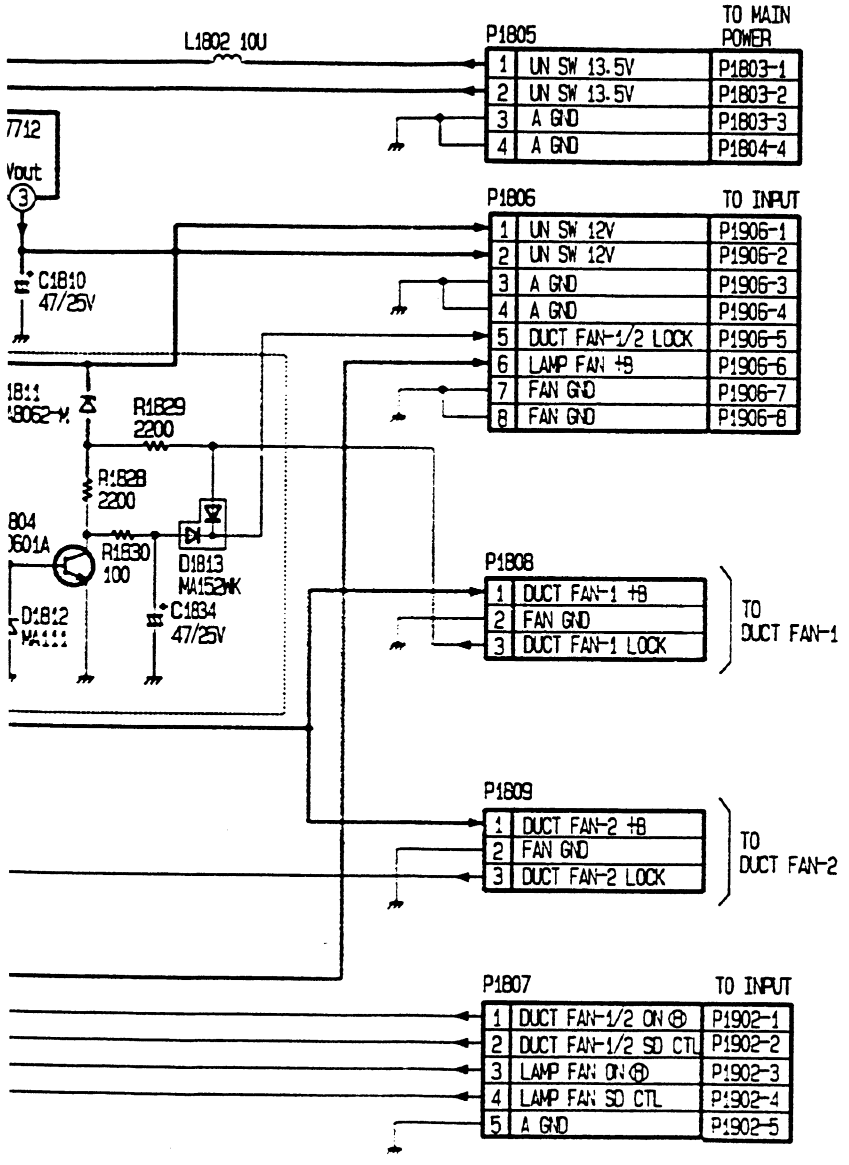
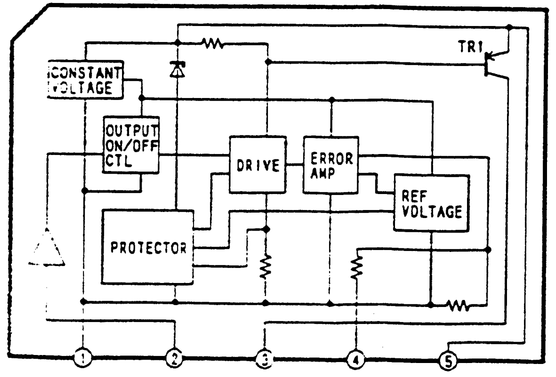
INLET/LINE FILTER SCHEMATIC DIAGRAM


L1802 10U
P1805
TO MAIN POWER
1 UN SW 13.5V P1803-1
2 UN SW 13.5V P1803-2
3 A GND P1803-3
4 A GND P1804-4
7712
Vout
C1810 47/25V
P1806
TO INPUT
1 UN SW 12V P1906-1
2 UN SW 12V P1906-2
3 A GND P1906-3
4 A GND P1906-4
5 DUCT FAN-1/2 LOCK P1906-5
6 LAMP FAN +B P1906-6
7 FAN GND P1906-7
8 FAN GND P1906-8
R1829 2200
R1828 2200
R1830 100
D1813 MA152WK
C1834 47/25V
D1812 MA111
P1808
1 DUCT FAN-1 +B
2 FAN GND
3 DUCT FAN-1 LOCK
TO DUCT FAN-1
P1809
1 DUCT FAN-2 +B
2 FAN GND
3 DUCT FAN-2 LOCK
TO DUCT FAN-2
P1807
TO INPUT
1 DUCT FAN-1/2 ON⊕ P1902-1
2 DUCT FAN-1/2 SD CTL P1902-2
3 LAMP FAN ON⊕ P1902-3
4 LAMP FAN SD CTL P1902-4
5 A GND P1902-5

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE

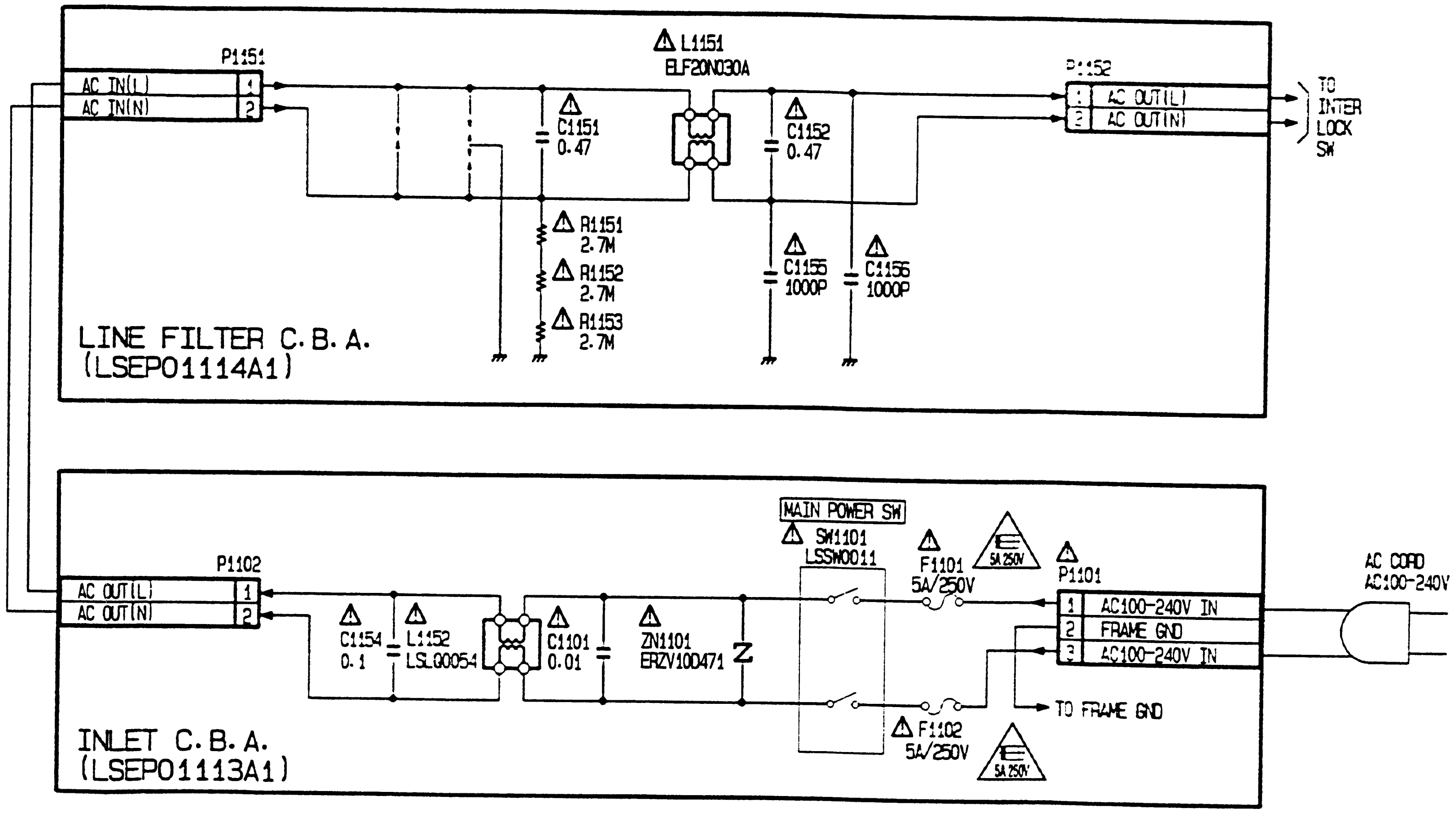
IC1803, IC1804
(SI-3050CA)


TR1
CONSTANT VOLTAGE
OUTPUT ON/OFF CTL
DRIVE
ERROR AMP
REF VOLTAGE
PROTECTOR
①
②
③
④
⑤

CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE 5A 250V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE N'UTILISER QUE DES FUSIBLE DE MEME TYPE 5A 250V

IMPORTANT SAFETY NOTICE:

COMPONENTS IDENTIFIED BY THE SINE ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.


P1151
AC IN(L) 1
AC IN(N) 2
⚠ L1151 ELF20N030A
⚠ C1151 0.47
⚠ C1152 0.47
⚠ R1151 2.7M
⚠ R1152 2.7M
⚠ R1153 2.7M
⚠ C1155 1000P
⚠ C1156 1000P
P1152
1 AC OUT(L)
2 AC OUT(N)
TO INTER LOCK SW
LINE FILTER C.B.A.
(LSEP01114A1)
P1102
AC OUT(L) 1
AC OUT(N) 2
⚠ C1154 0.1
⚠ L1152 LSLQ0054
⚠ C1101 0.01
⚠ ZN1101 ERZV10D471
MAIN POWER SW
⚠ SW1101 LSSW0011
⚠ F1101 5A/250V
⚠ F1102 5A/250V
5A 250V
⚠ P1101
1 AC100-240V IN
2 FRAME GND
3 AC100-240V IN
TO FRAME GND
AC CORD AC100-240V
INLET C.B.A.
(LSEP01113A1)

Note:
Main Power schematic diagram is not included in Service Manual.
Because Main Power C.B.A. is supplied as a unit (C.B.A.) only.
If necessary, use the power block diagram for reference.

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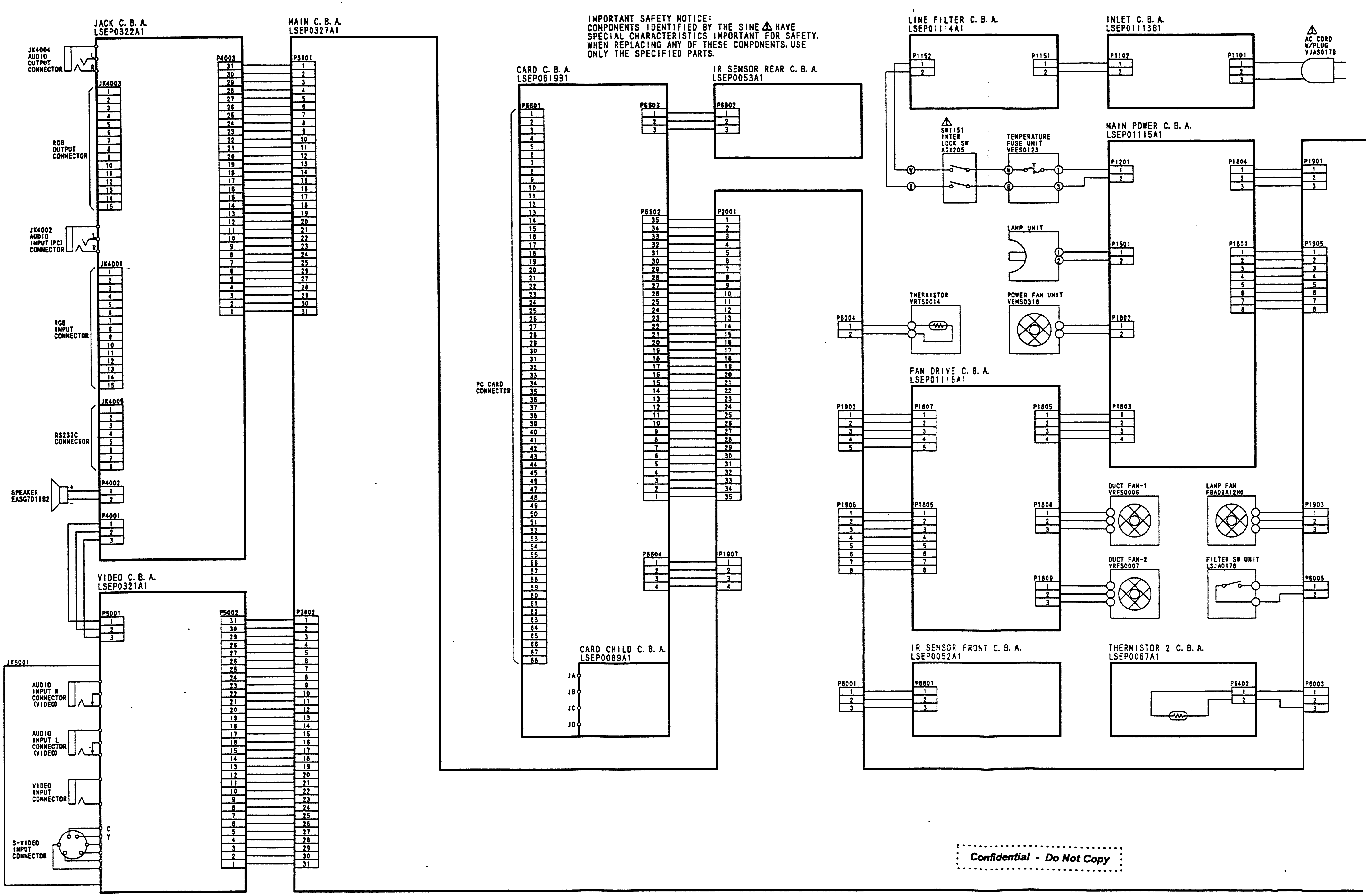
INTERCONNECTION SCHEMATIC DIAGRAM


JACK C. B. A.
LSEP0322A1
JK4004 AUDIO OUTPUT CONNECTOR
L
R
JK4003
RGB OUTPUT CONNECTOR
JK4002 AUDIO INPUT (PC) CONNECTOR
JK4001
RGB INPUT CONNECTOR
JK4005
RS232C CONNECTOR
SPEAKER EASG7D11B2
P4002
P4001
P4003
MAIN C. B. A.
LSEP0327A1
P3001
VIDEO C. B. A.
LSEP0321A1
P5001
P5002
P3002
JK5001
AUDIO INPUT R CONNECTOR (VIDEO)
AUDIO INPUT L CONNECTOR (VIDEO)
VIDEO INPUT CONNECTOR
S-VIDEO INPUT CONNECTOR
C
Y
CARD C. B. A.
LSEP0619B1
P6601
PC CARD CONNECTOR
P6603
P6602
P6604
CARD CHILD C. B. A.
LSEP0089A1
JA
JB
JC
JD
IR SENSOR REAR C. B. A.
LSEP0053A1
P6802
P2001
P1907
LINE FILTER C. B. A.
LSEP01114A1
P1152
P1151
INLET C. B. A.
LSEP01113B1
P1102
P1101
⚠ AC CORD W/PLUG VJA50179
⚠ SW1151 INTER LOCK SW AGX205
TEMPERATURE FUSE UNIT VEES0123
MAIN POWER C. B. A.
LSEP01115A1
P1201
P1804
P1901
LAMP UNIT
P1501
P1801
P1905
THERMISTOR VRT50014
POWER FAN UNIT VEMS0318
P1802
P6004
FAN DRIVE C. B. A.
LSEP01116A1
P1902
P1807
P1805
P1803
P1906
P1806
P1808
DUCT FAN-1 VRF50006
LAMP FAN FBA09A12H0
P1903
DUCT FAN-2 VRF50007
FILTER SW UNIT LSJA0178
P1809
P6005
IR SENSOR FRONT C. B. A.
LSEP0052A1
P6001
P6801
THERMISTOR 2 C. B. A.
LSEP0067A1
P6402
P6003

IMPORTANT SAFETY NOTICE:
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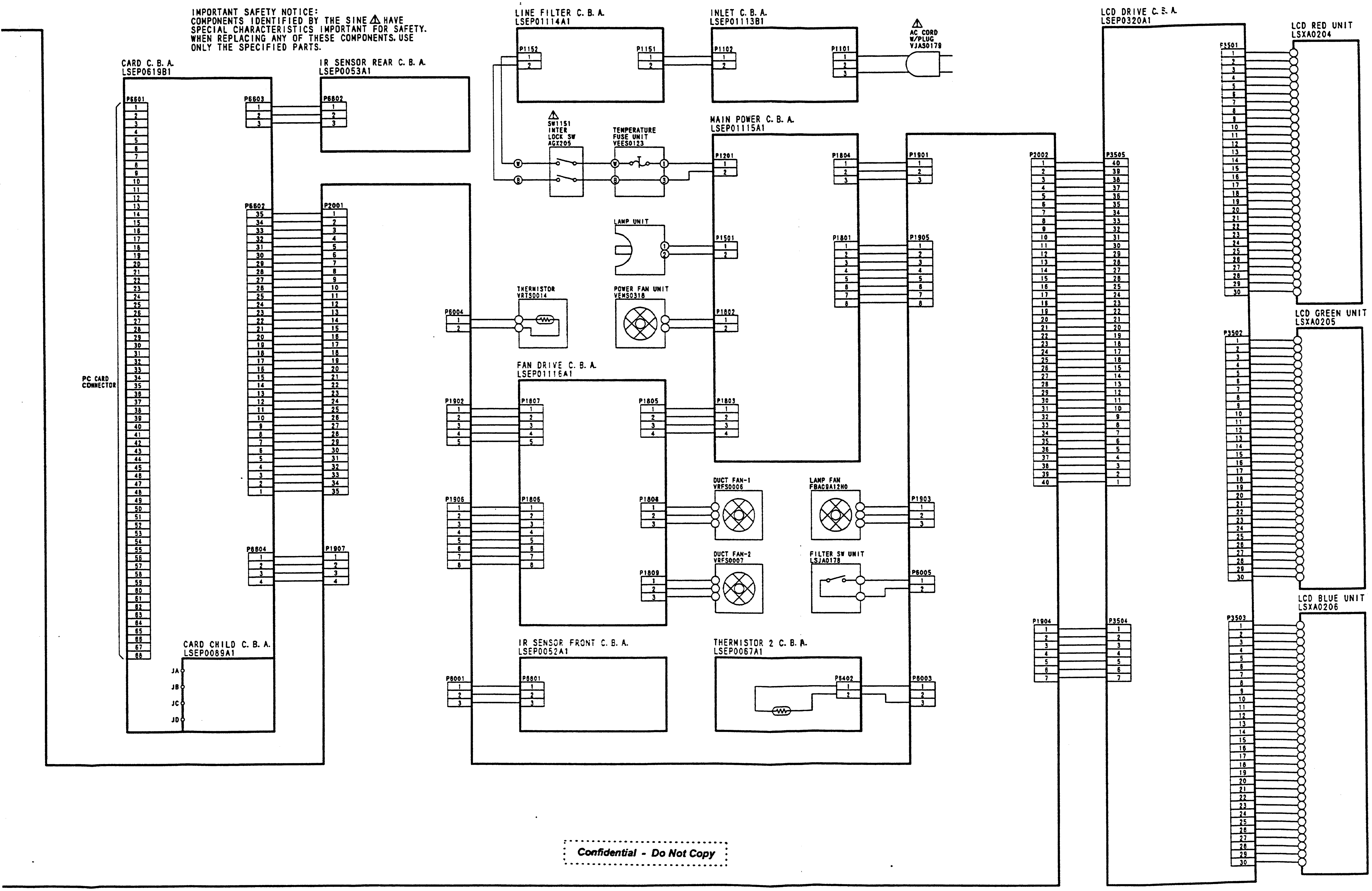
AGRAM



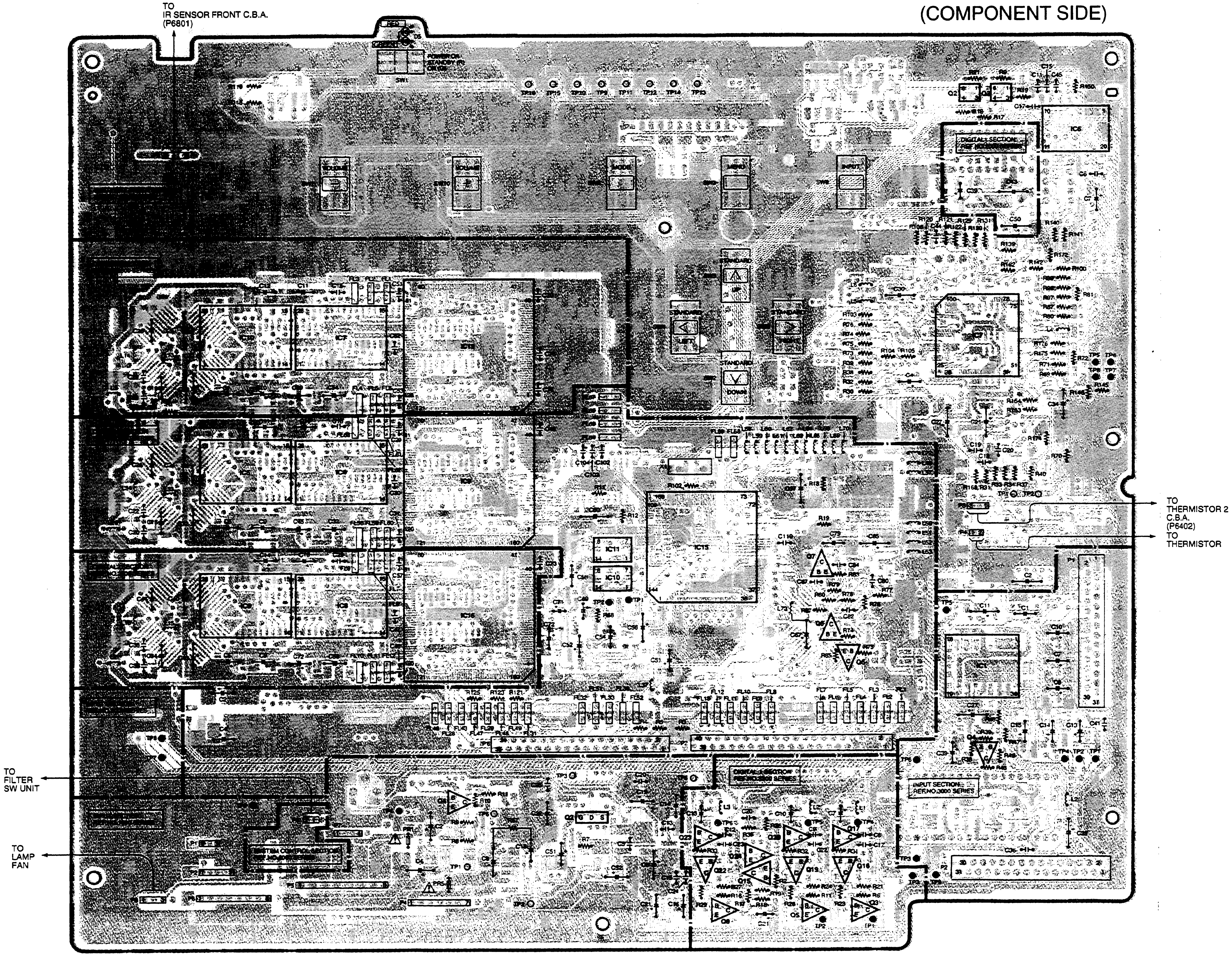
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SINE ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

CARD C. B. A.
LSEP0619B1
P6601
PC CARD CONNECTOR
P6603
P6602
P6604
CARD CHILD C. B. A.
LSEP0089A1
JA
JB
JC
JD
IR SENSOR REAR C. B. A.
LSEP0053A1
P6802
P2001
P1907
LINE FILTER C. B. A.
LSEP01114A1
P1152
P1151
INLET C. B. A.
LSEP01113B1
P1102
P1101
⚠
AC CORD
W/PLUG
VJAS0179
⚠
SW1151
INTER
LOCK SW
AGX205
TEMPERATURE
FUSE UNIT
VEES0123
MAIN POWER C. B. A.
LSEP01115A1
P1201
P1804
P1501
P1801
P1802
P1803
LAMP UNIT
THERMISTOR
VRTS0014
POWER FAN UNIT
VEMS0318
P6004
FAN DRIVE C. B. A.
LSEP01116A1
P1902
P1807
P1805
P1906
P1806
P1808
P1809
DUCT FAN-1
VRFS0006
DUCT FAN-2
VRFS0007
LAMP FAN
FBAC9A12H0
FILTER SW UNIT
LSJA0178
IR SENSOR FRONT C. B. A.
LSEP0052A1
P6001
P6801
THERMISTOR 2 C. B. A.
LSEP0067A1
P5402
P1901
P1905
P1903
P6005
P6003
P2002
P1904
LCD DRIVE C. B. A.
LSEP0320A1
P3505
P3504
P3501
P3502
P3503
LCD RED UNIT
LSXA0204
LCD GREEN UNIT
LSXA0205
LCD BLUE UNIT
LSXA0206

CIRCUIT BOARD DIAGRAMS
MAIN C.B.A. LSEP0327A1

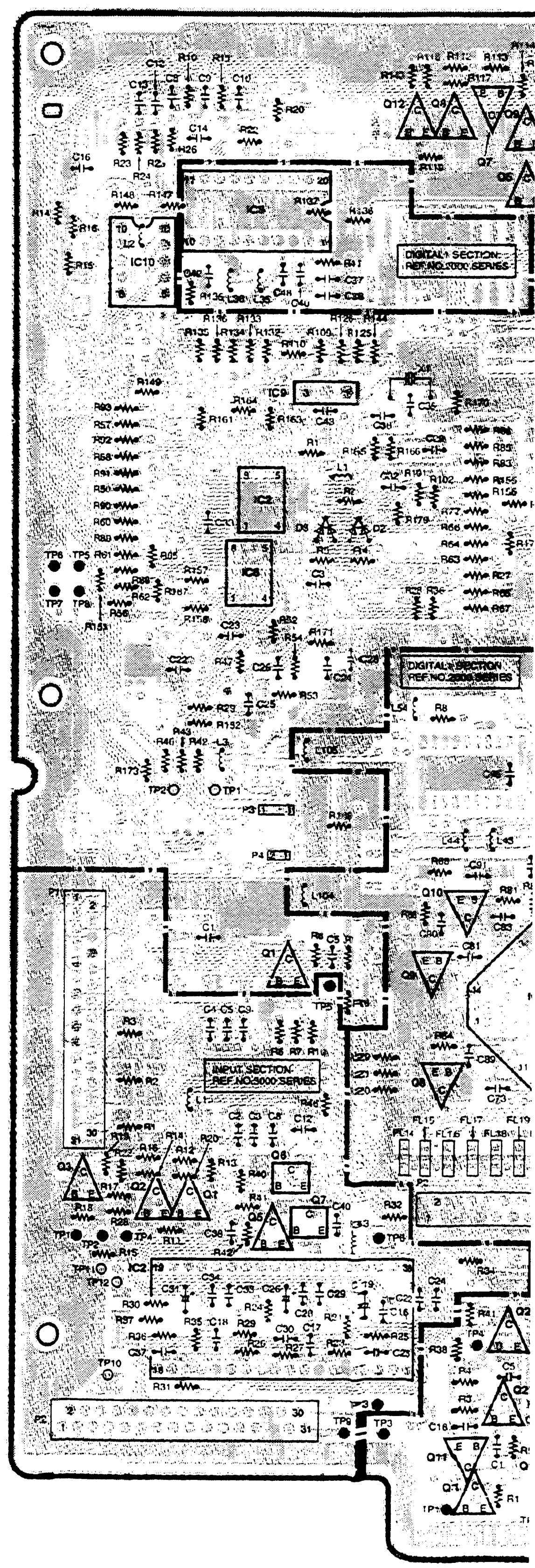
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SINE ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,USE ONLY THE SPECIFIED PARTS.

(COMPONENT SIDE)


TO
IR SENSOR FRONT C.B.A.
(P6801)
POWER ON
STANDBY
SW1
TO
THERMISTOR 2
C.B.A.
(P6402)
TO
THERMISTOR
TO
FILTER
SW UNIT
TO
LAMP
FAN
DIGITAL SECTION
INPUT SECTION
REF.NO.3000 SERIES

(QUADRUPLE PATTERNS)

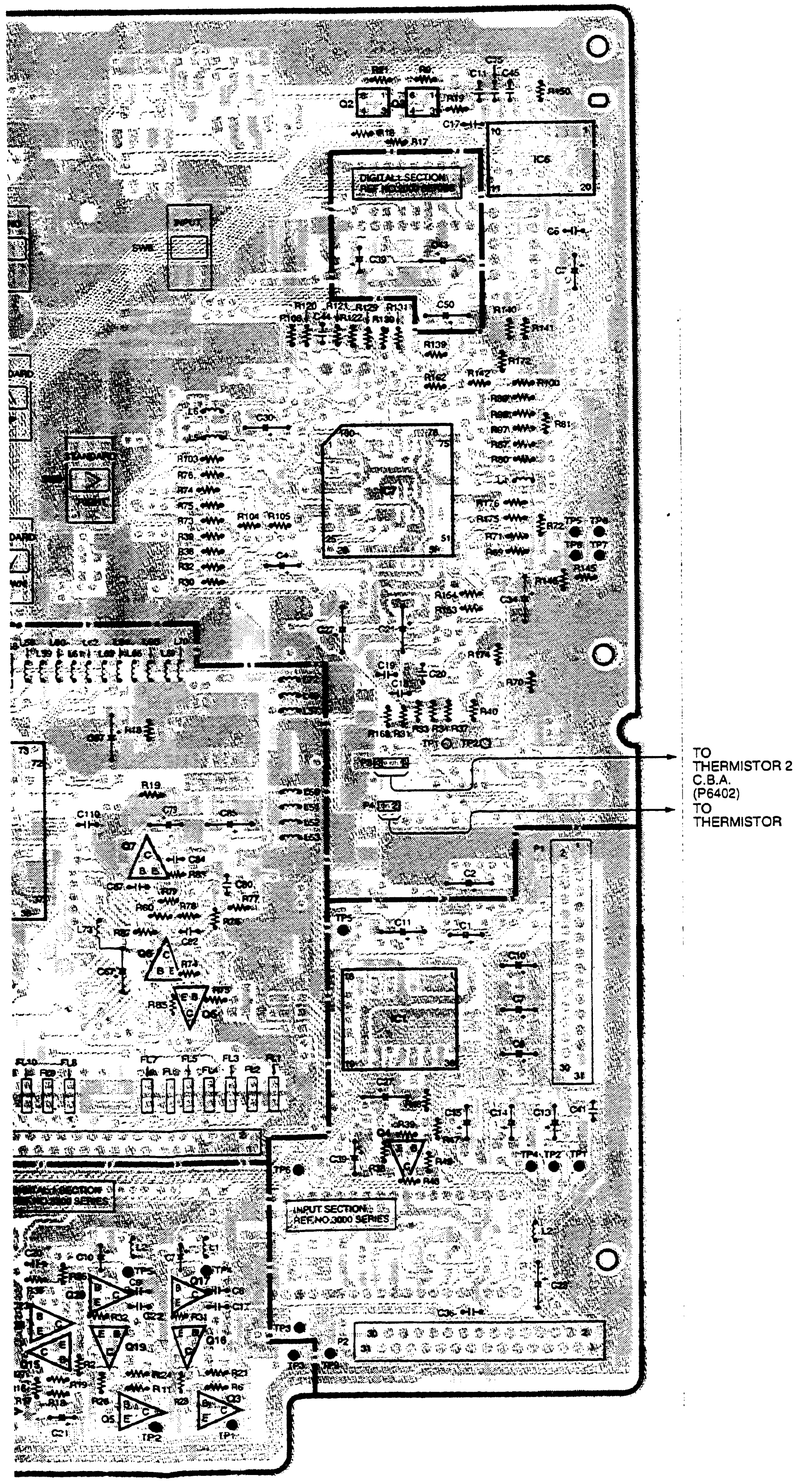
(FOIL SIDE)


DIGITAL SECTION
REF.NO.2000 SERIES
INPUT SECTION
REF.NO.3000 SERIES

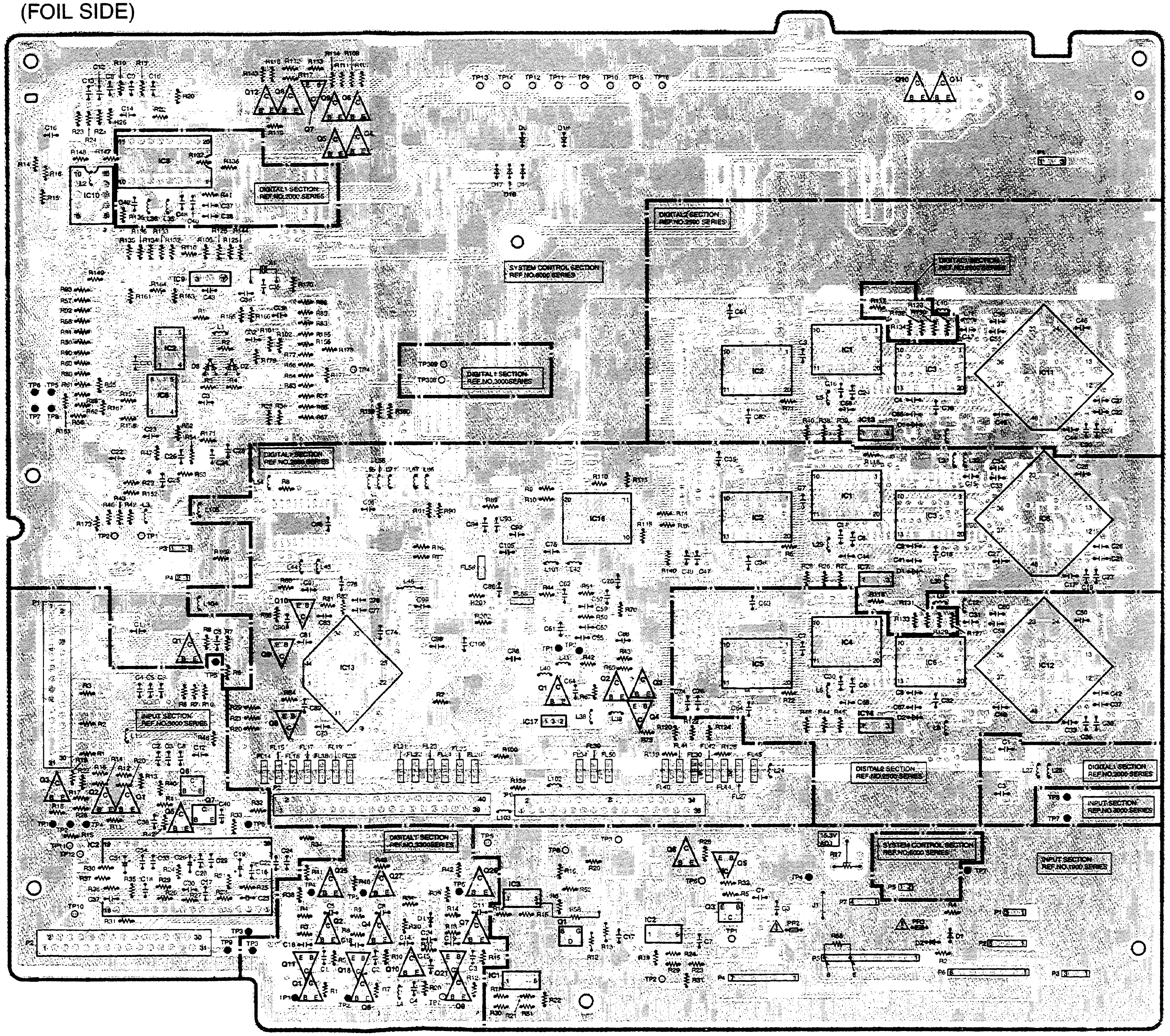
TICE:
ED BY THE SINE ⚠ HAVE SPECIAL
)RTANT FOR SAFETY.
OF THESE COMPONENTS,USE ONLY

NOTE: REF. NO. ON MAIN C.B.A. IS ABBREVIATED AS FOLLOWS.
REF. NO. 1900 SERIES (R1902 IS ABBREVIATED TO R2)
REF. NO. 2000 SERIES (R2002 IS ABBREVIATED TO R2)
REF. NO. 2500 SERIES (R2502 IS ABBREVIATED TO R2)
REF. NO. 3000 SERIES (R3002 IS ABBREVIATED TO R2)
REF. NO. 3300 SERIES (R3302 IS ABBREVIATED TO R2)
REF. NO. 6000 SERIES (R6002 IS ABBREVIATED TO R2)

(COMPONENT SIDE)


DIGITAL SECTION REF.NO.2000 SERIES
INPUT SECTION REF.NO.3000 SERIES
TO THERMISTOR 2 C.B.A. (P6402)
TO THERMISTOR

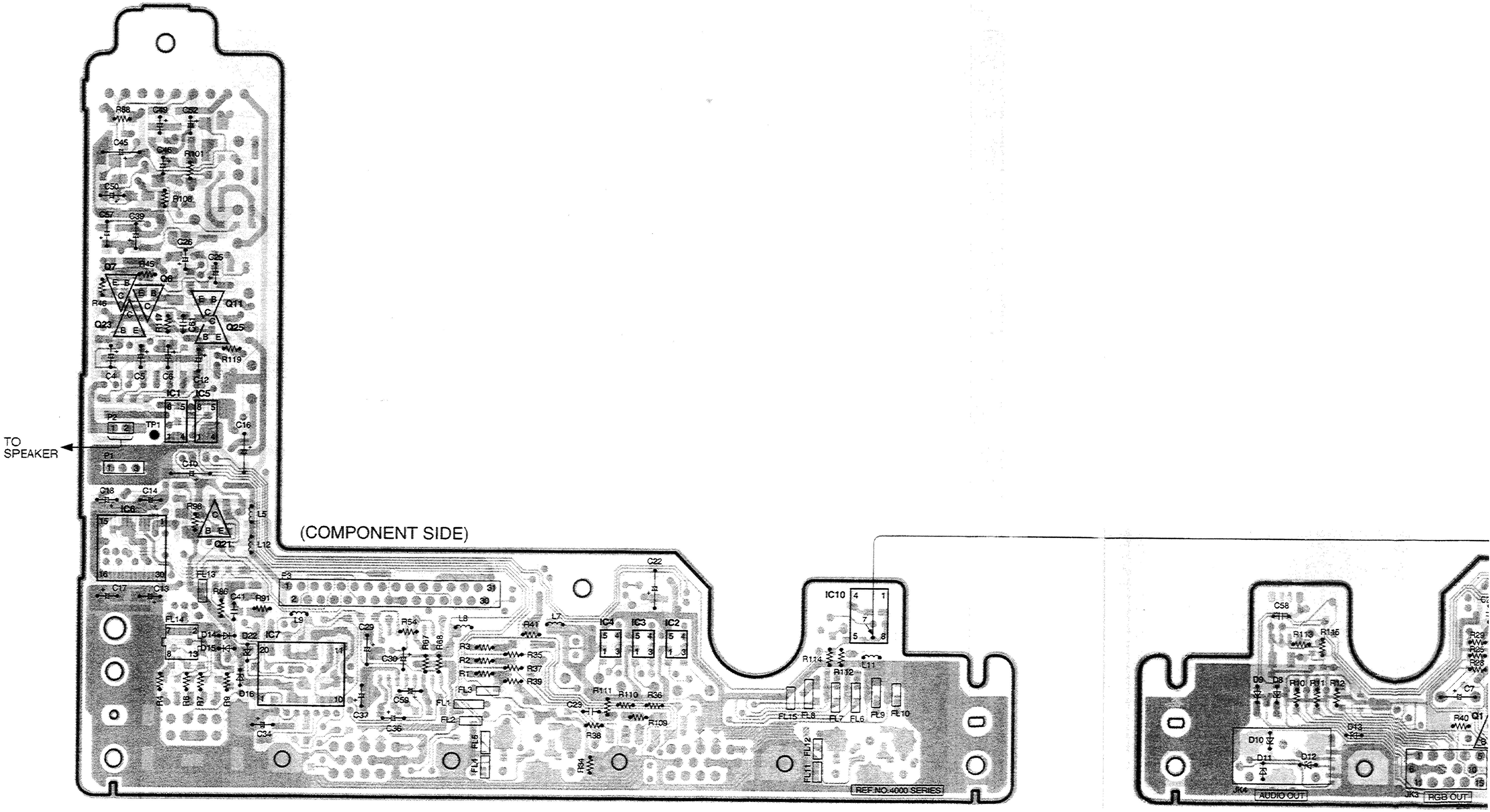
(FOIL SIDE)


DIGITAL SECTION REF.NO.2000 SERIES
DIGITAL SECTION REF.NO.2500 SERIES
DIGITAL SECTION REF.NO.3300 SERIES
SYSTEM CONTROL SECTION REF.NO.6000 SERIES
INPUT SECTION REF.NO.3000 SERIES
INPUT SECTION REF.NO.1900 SERIES

(QUADRUPLE PATTERNS)

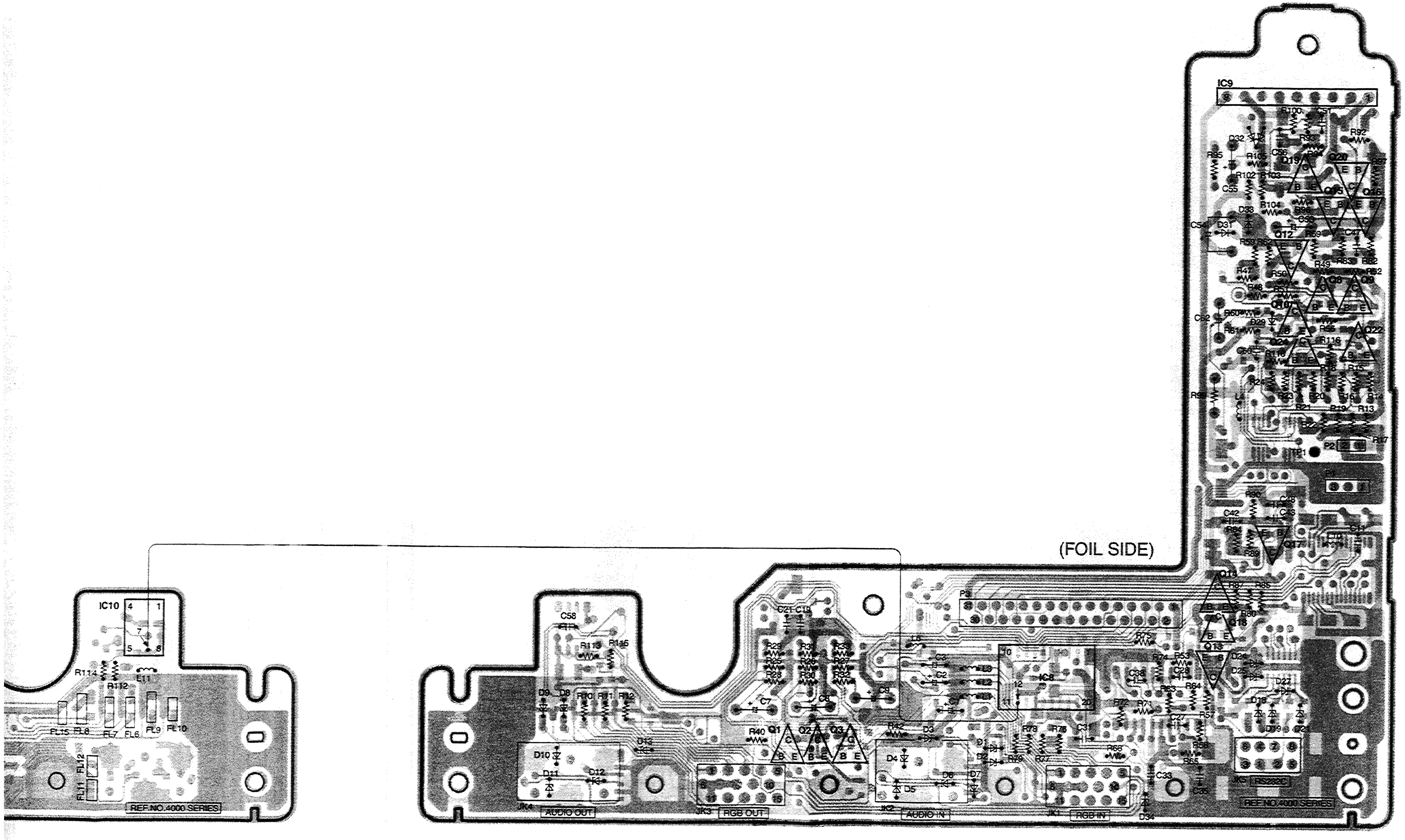
LSJB0327-2

JACK C.B.A. LSEP0322A1


TO SPEAKER
(COMPONENT SIDE)
R88
C49
C52
C45
C46
R101
C50
R108
C57
C39
C26
C25
Q7
R45
Q8
R46
Q11
Q23
Q25
R119
C4
C5
C6
C12
IC1
IC5
P2
TP1
C16
P1
C10
C18
C14
IC6
R98
L5
Q21
L12
FL13
C17
C13
R86
C41
R91
P3
FL14
D14
D22
IC7
D15
D16
L9
C29
R54
L8
R41
L7
C22
IC4
IC3
IC2
IC10
R67
R68
R3
R35
R2
R37
R1
R39
C30
C58
FL3
FL1
FL2
C37
C36
C34
FL5
FL4
R4
R6
R7
R9
R111
R110
R36
C23
R109
R38
R84
R114
R112
L11
FL15
FL8
FL7
FL6
FL9
FL10
FL12
FL11
REF NO.4000 SERIES
R113
R115
D9
D8
R10
R11
R12
R29
R25
R26
C7
D13
R40
Q1
D10
D11
D12
JK4
AUDIO OUT
JK3
RGB OUT

(QUADRUPLE PATTERNS)

NOTE: REF. NO. ON C.B.A. IS ABBREVIATED AS FOLLOWS.
EXAMPLE: C.B.A....R2, REF. NO. 4000 SERIES
SCHEMATIC DIAGRAM...R4002
(R4002 IS ABBREVIATED TO R2)

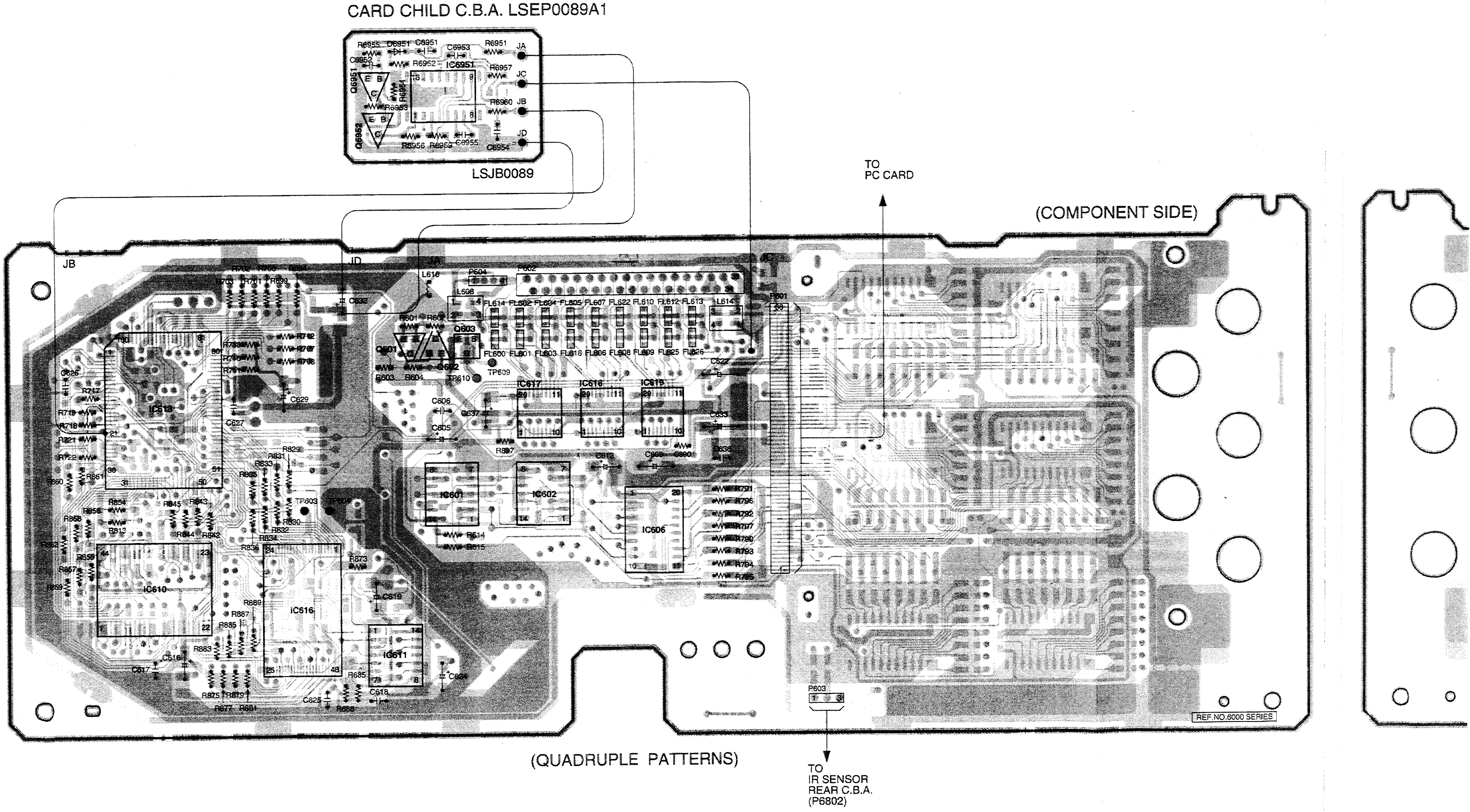

IC9
IC10
IC8
P3
JK4 AUDIO OUT
JK3 RGB OUT
JK2 AUDIO IN
JK1 RGB IN
JK5 RS232C
REF.NO.4000 SERIES
REF.NO.4000 SERIES
FL15
FL8
FL7
FL6
FL9
FL10
FL11
FL12
R114
R112
E11
C58
R113
R115
Q1
Q2
Q3
D34

(FOIL SIDE)

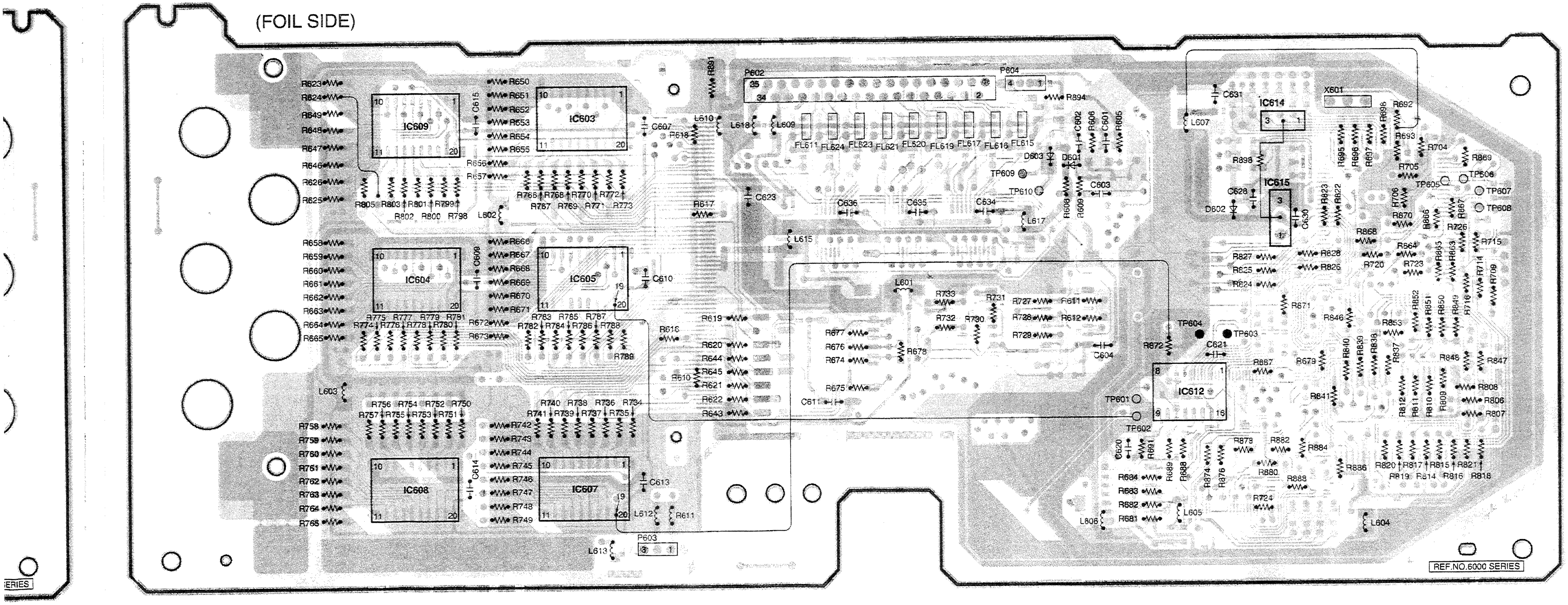
(QUADRUPLE PATTERNS)

LSJB0322-2

CARD C.B.A. LSEP0619B1


CARD CHILD C.B.A. LSEP0089A1
R6955 D6951 C6951 R6951 JA
C6952 R6952 C6953 IC6951
Q6951 R6957 JC
R6954 R6953 R6960 JB
Q6952 R6956 R6959 C6955 C6954 JD
LSJB0089
TO PC CARD
(COMPONENT SIDE)
JB JD JA JC
L616 P604 P602 L608 P601
FL614 FL602 FL604 FL605 FL607 FL622 FL610 FL612 FL613 L614
FL600 FL601 FL603 FL618 FL606 FL608 FL609 FL625 FL626
R603 R604 R601 R602 Q601 Q602 Q603 TP609 TP610
C632 C629 C626 C627 C606 C605 C637 C622 C633 C636 C612 C608 C690
IC613 IC617 IC618 IC619 IC601 IC602 IC606 IC610 IC616 IC611
R742 R767 R768 R717 R719 R718 R721 R722 R860 R861
R829 R831 R833 R835 R897 TP603 TP604
R791 R796 R792 R797 R790 R793 R794 R795
R854 R856 R845 R843 R813 R844 R842 R830 R832 R834 R836 R814 R815
R868 R862 R859 R857 R873 C619 R889 R887 R885 R883
C616 C617 R825 R879 R877 R881 C625 R685 C618 R688 C624
P603
REF.NO.6000 SERIES
(QUADRUPLE PATTERNS)
TO
IR SENSOR
REAR C.B.A.
(P6802)

NOTE: REF. NO. ON C.B.A. IS ABBREVIATED AS FOLLOWS.
EXAMPLE: C.B.A. ...R2, REF. NO. 6000 SERIES
SCHEMATIC DIAGRAM...R6002
(R6002 IS ABBREVIATED TO R2)


(FOIL SIDE)
IC609
IC603
IC604
IC605
IC608
IC607
IC612
IC614
IC615
P602
P604
P603
X601
L601
L602
L603
L604
L605
L606
L607
L609
L610
L612
L613
L615
L617
L618
FL611
FL624
FL623
FL621
FL620
FL619
FL617
FL616
FL615
D601
D602
D603
TP601
TP602
TP603
TP604
TP605
TP606
TP607
TP608
TP609
TP610
C603
C604
C607
C610
C611
C613
C614
C615
C620
C621
C623
C628
C630
C631
C634
C635
C636
REF.NO.6000 SERIES
ERIES

(QUADRUPLE PATTERNS)

LSJB0619-2

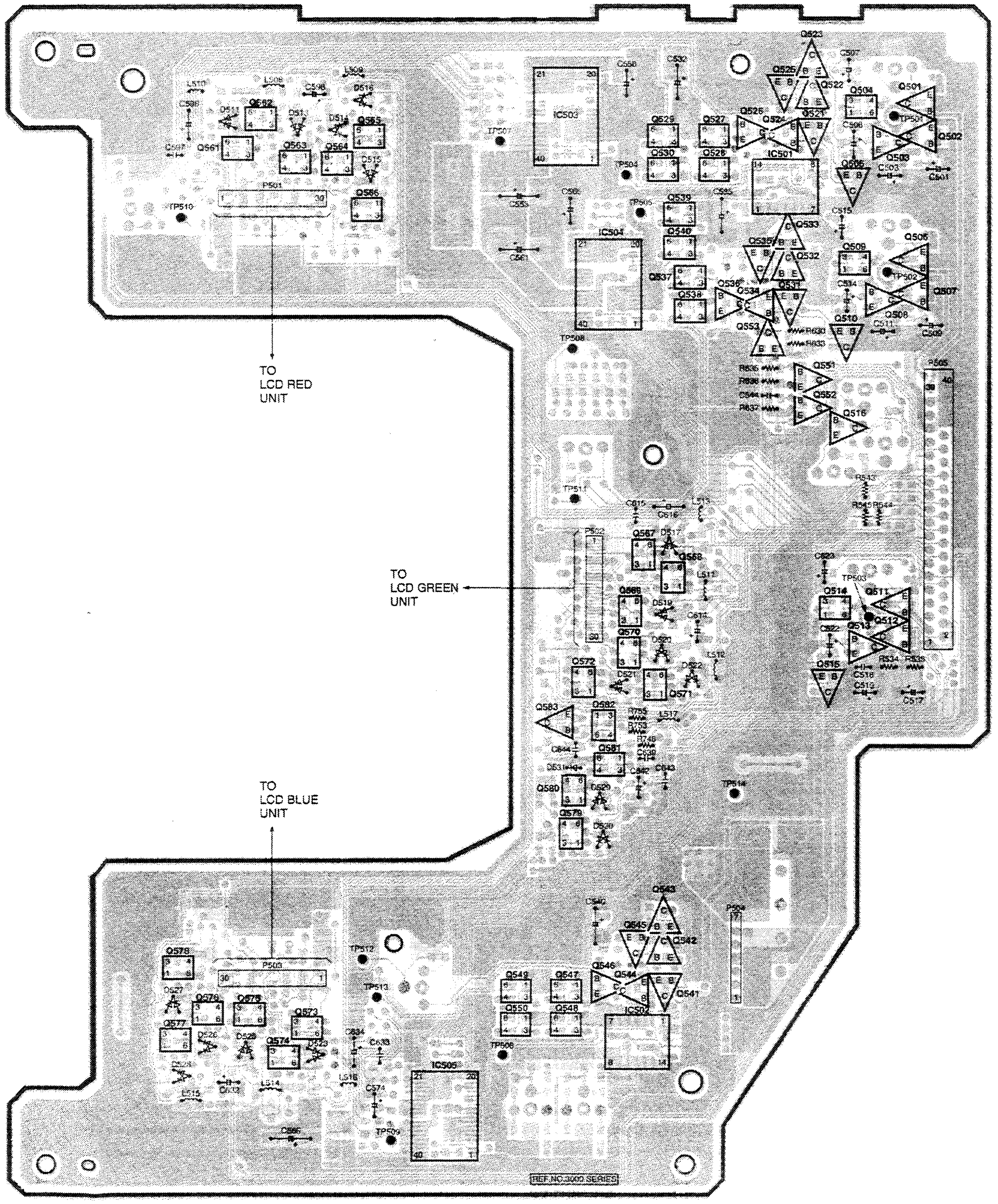
Confidential - Do Not Copy

LCD DRIVE C.B.A. LSEP0320A1

NOTE: REF. NO. ON C.B.A. IS ABBREVIATED AS FOLLOWS.
EXAMPLE: C.B.A. ...R2, REF. NO. 3000 SERIES
SCHEMATIC DIAGRAM...R3002
(R3002 IS ABBREVIATED TO R2)

VIDEO C

(COMPONENT SIDE)


IC501
IC502
IC503
IC504
IC505
P501
P502
P503
P504
P505
REF.NO.3000 SERIES

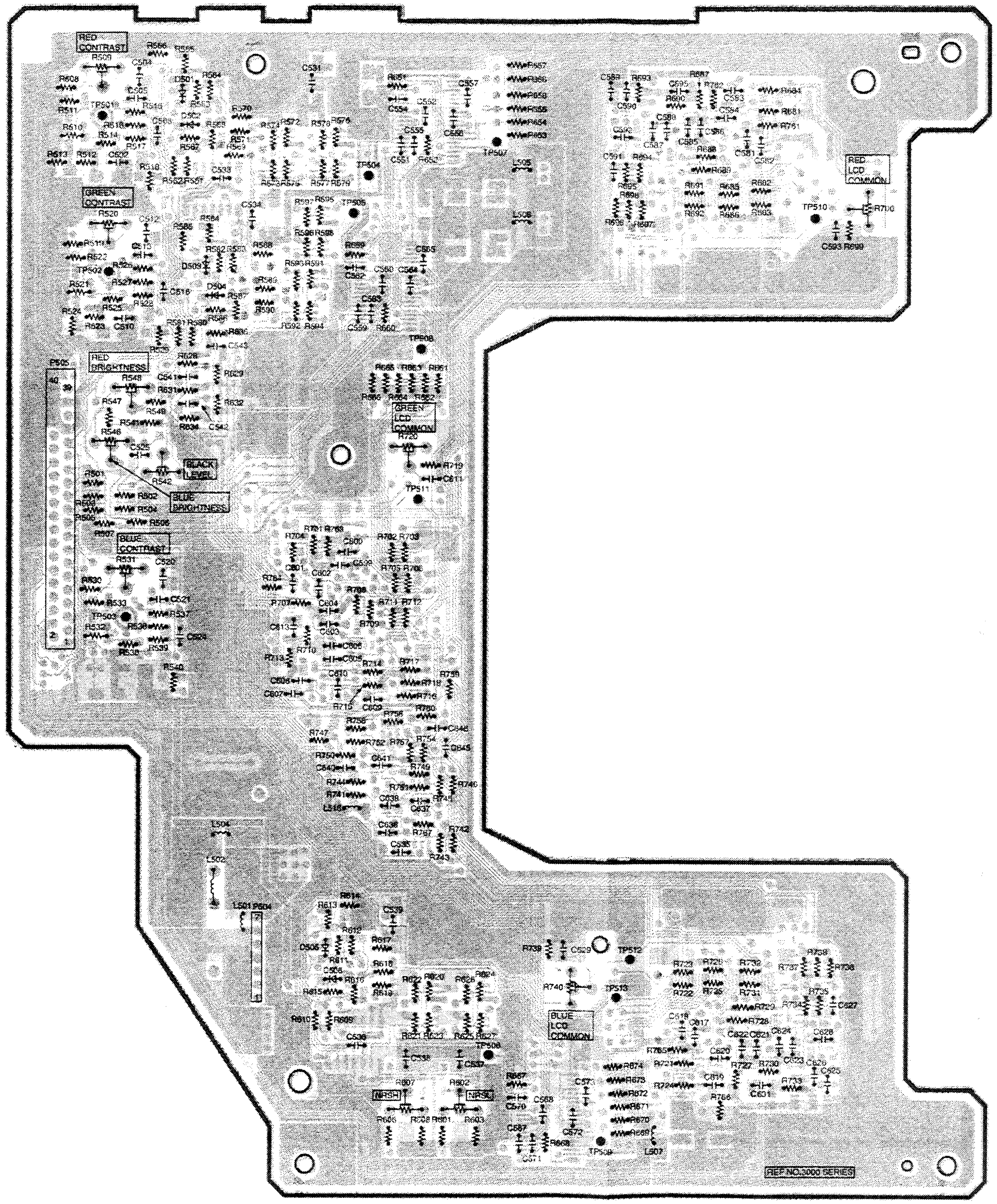
TO LCD RED UNIT

TO LCD GREEN UNIT

TO LCD BLUE UNIT

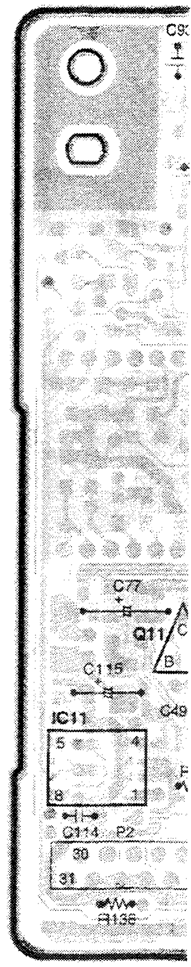
(QUADRUPLE PATTERNS)

(FOIL SIDE)


RED CONTRAST
GREEN CONTRAST
RED BRIGHTNESS
BLACK LEVEL
BLUE BRIGHTNESS
BLUE CONTRAST
RED LCD COMMON
GREEN LCD COMMON
BLUE LCD COMMON
NRSH
NRSC
P505
REF.NO.3000 SERIES

(QUADRUPLE PATTERNS)

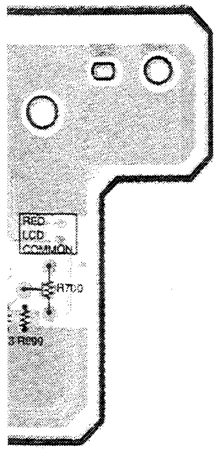
LSJB0320-2


C77
Q11
C115
IC11
C114
P2
R136

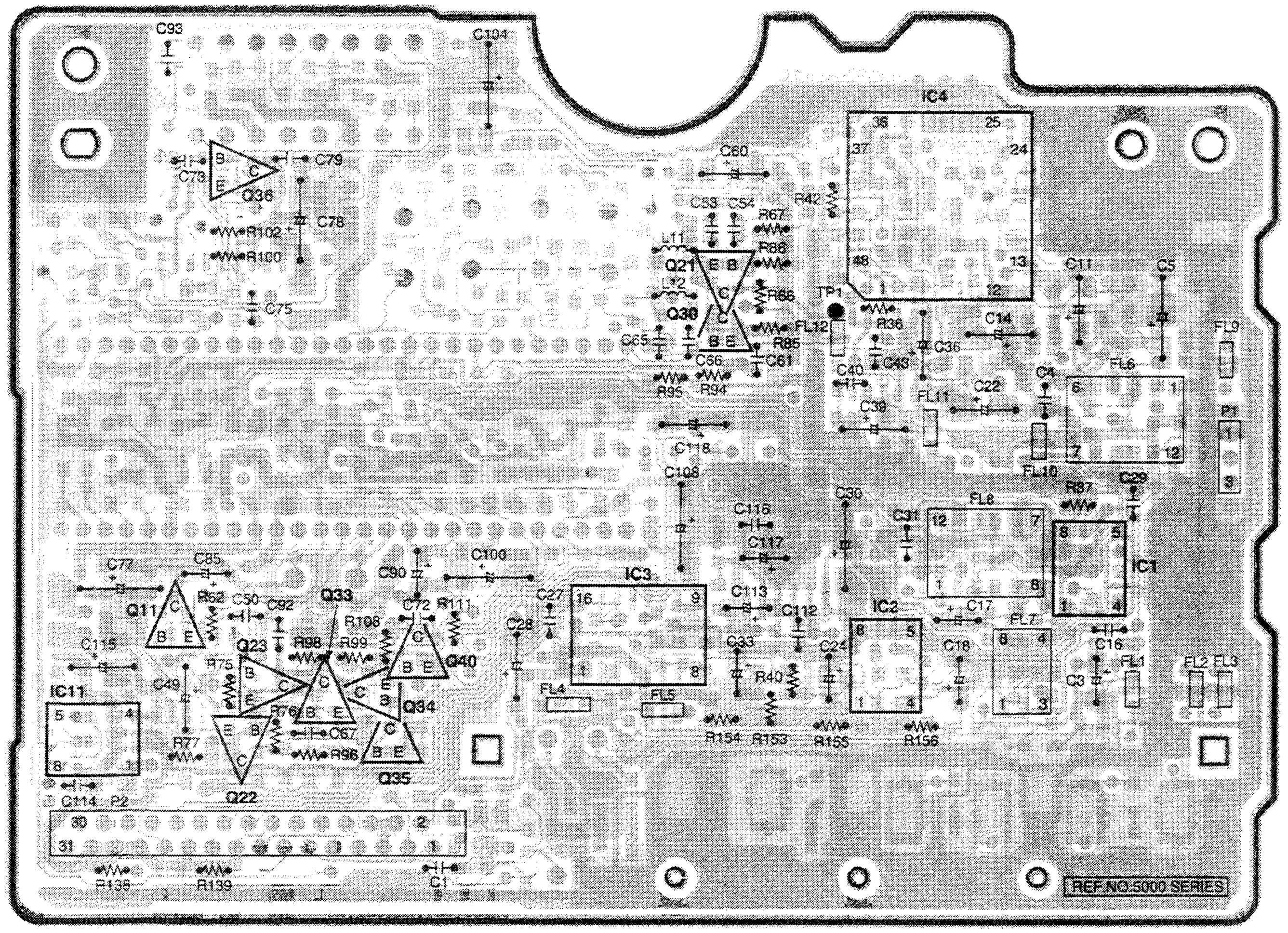
REVIATED AS FOLLOWS.
F. NO. 3000 SERIES
3002
O R2)

VIDEO C.B.A. LSEP0321A1

NOTE: REF. NO. ON C.B.A. IS ABBREVIATED AS FOLLOWS.
EXAMPLE: C.B.A....R2, REF. NO. 5000 SERIES
SCHEMATIC DIAGRAM...R5002
(R5002 IS ABBREVIATED TO R2)

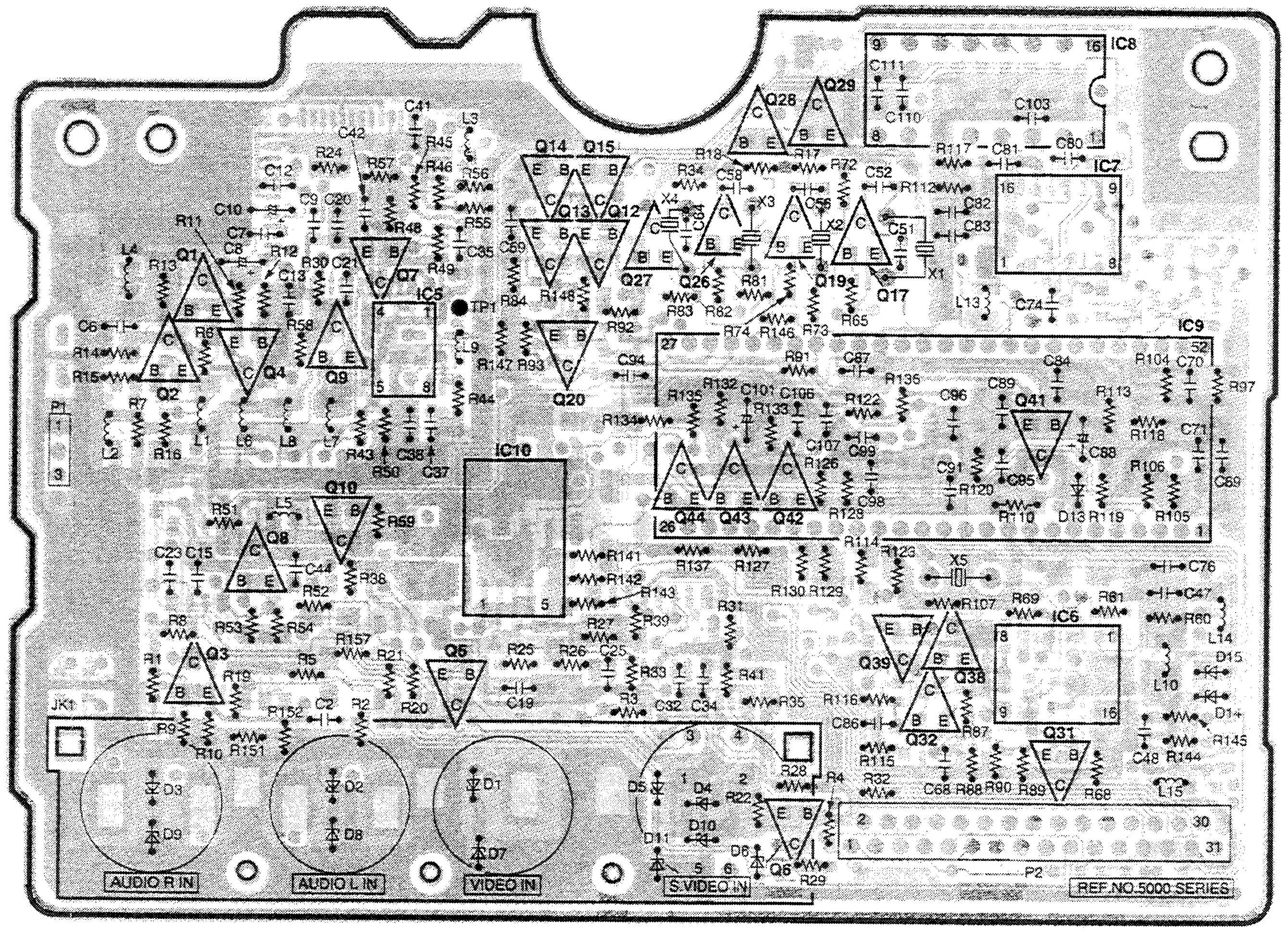

RED
LCD
COMMON
R700
R699

(COMPONENT SIDE)


IC1
IC2
IC3
IC4
IC11
P1
P2
TP1
FL1
FL2
FL3
FL4
FL5
FL6
FL7
FL8
FL9
FL10
FL11
FL12
Q11
Q21
Q22
Q23
Q30
Q33
Q34
Q35
Q36
Q40
REF.NO.5000 SERIES

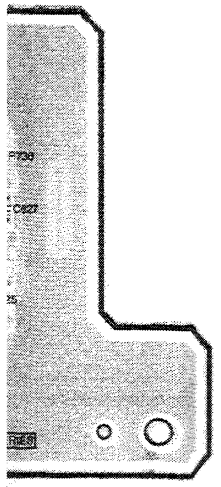
(QUADRUPLE PATTERNS)

(FOIL SIDE)


IC5
IC6
IC7
IC8
IC9
IC10
JK1
P1
P2
TP1
X1
X2
X3
X4
X5
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9
Q10
Q12
Q13
Q14
Q15
Q17
Q19
Q20
Q26
Q27
Q28
Q29
Q31
Q32
Q38
Q39
Q41
Q42
Q43
Q44
AUDIO R IN
AUDIO L IN
VIDEO IN
S.VIDEO IN
REF.NO.5000 SERIES

(QUADRUPLE PATTERNS)

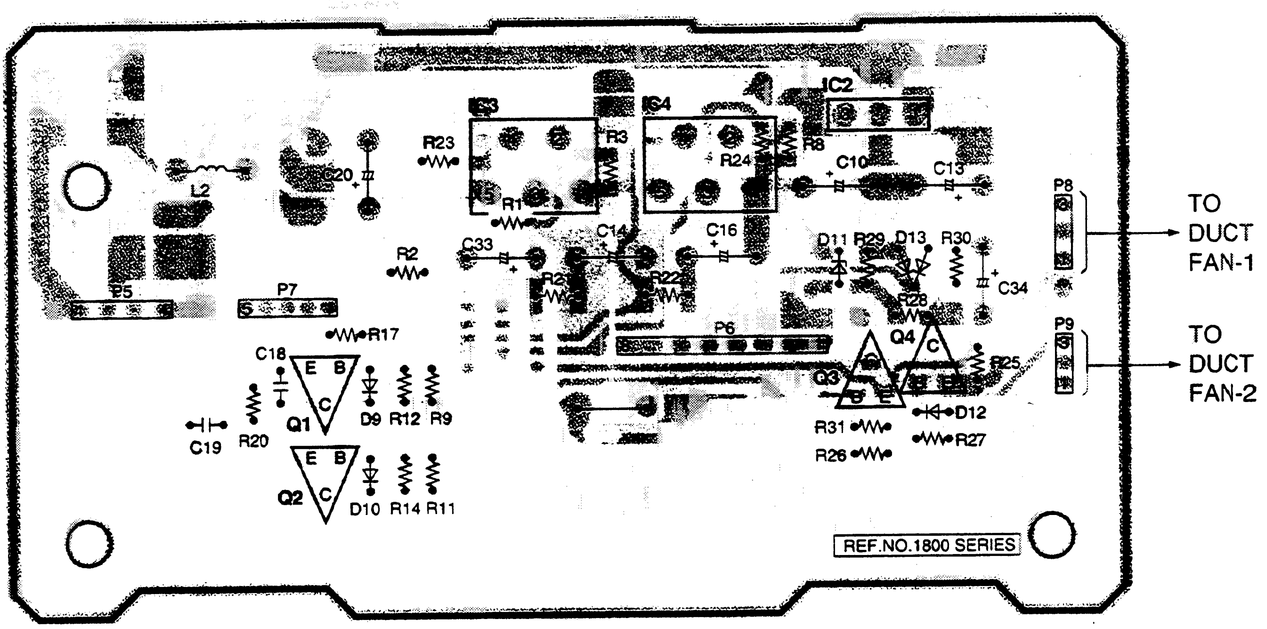
LSJB0321-2



LSJB0320-2

FAN DRIVE C.B.A. LSEP01116A1

NOTE: REF. NO. ON C.B.A. IS ABBREVIATED AS FOLLOWS.
EXAMPLE: C.B.A. ...R2, REF. NO. 1800 SERIES
SCHEMATIC DIAGRAM...R1802
(R1802 IS ABBREVIATED TO R2)


IC3
IC4
IC2
R23
R3
R24
R8
C10
C13
C20
L2
R1
P8
TO DUCT FAN-1
C14
C16
C33
R2
R21
R22
D11
R29
D13
R30
C34
P5
P7
P6
R28
P9
TO DUCT FAN-2
R17
Q4
C18
E
B
C
Q3
R25
Q1
D9
R12
R9
C19
R20
D12
R31
R27
R26
Q2
D10
R14
R11
REF.NO.1800 SERIES

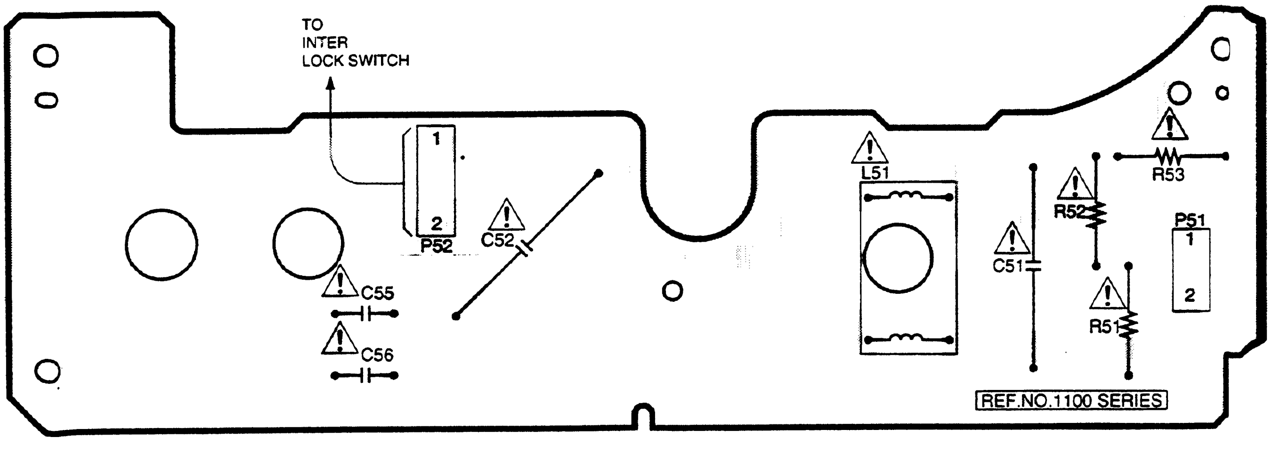
(DUAL PATTERNS)

LSJB01116-1

LINE FILTER C.B.A. LSEP01114A1

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SINE ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

NOTE: REF. NO. ON C.B.A. IS ABBREVIATED AS FOLLOWS.
EXAMPLE: C.B.A. ...R2, REF. NO. 1100 SERIES
SCHEMATIC DIAGRAM...R1102
(R1102 IS ABBREVIATED TO R2)


TO INTER LOCK SWITCH
1
2
P52
C52
C55
C56
L51
C51
R52
R53
R51
P51
1
2
REF.NO.1100 SERIES

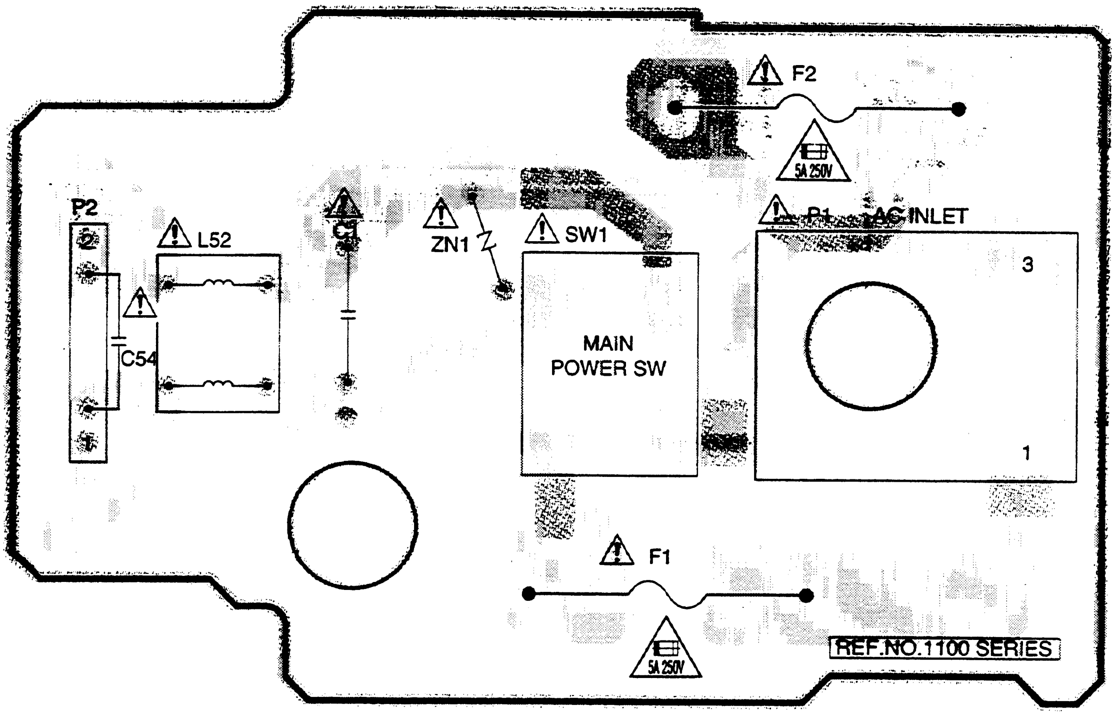
LSJB01114-1

INLET C.B.A. LSEP01113B1

NOTE: REF. NO. ON C.B.A. IS ABBREVIATED AS FOLLOWS.
EXAMPLE: C.B.A....R2, REF. NO. 1100 SERIES
SCHEMATIC DIAGRAM...R1102
(R1102 IS ABBREVIATED TO R2)

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SINE ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,USE ONLY THE SPECIFIED PARTS.

CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE 5A 250V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE N'UTILISER QUE DES FUSIBLE DE MEME TYPE 5A 250V



(DUAL PATTERNS)

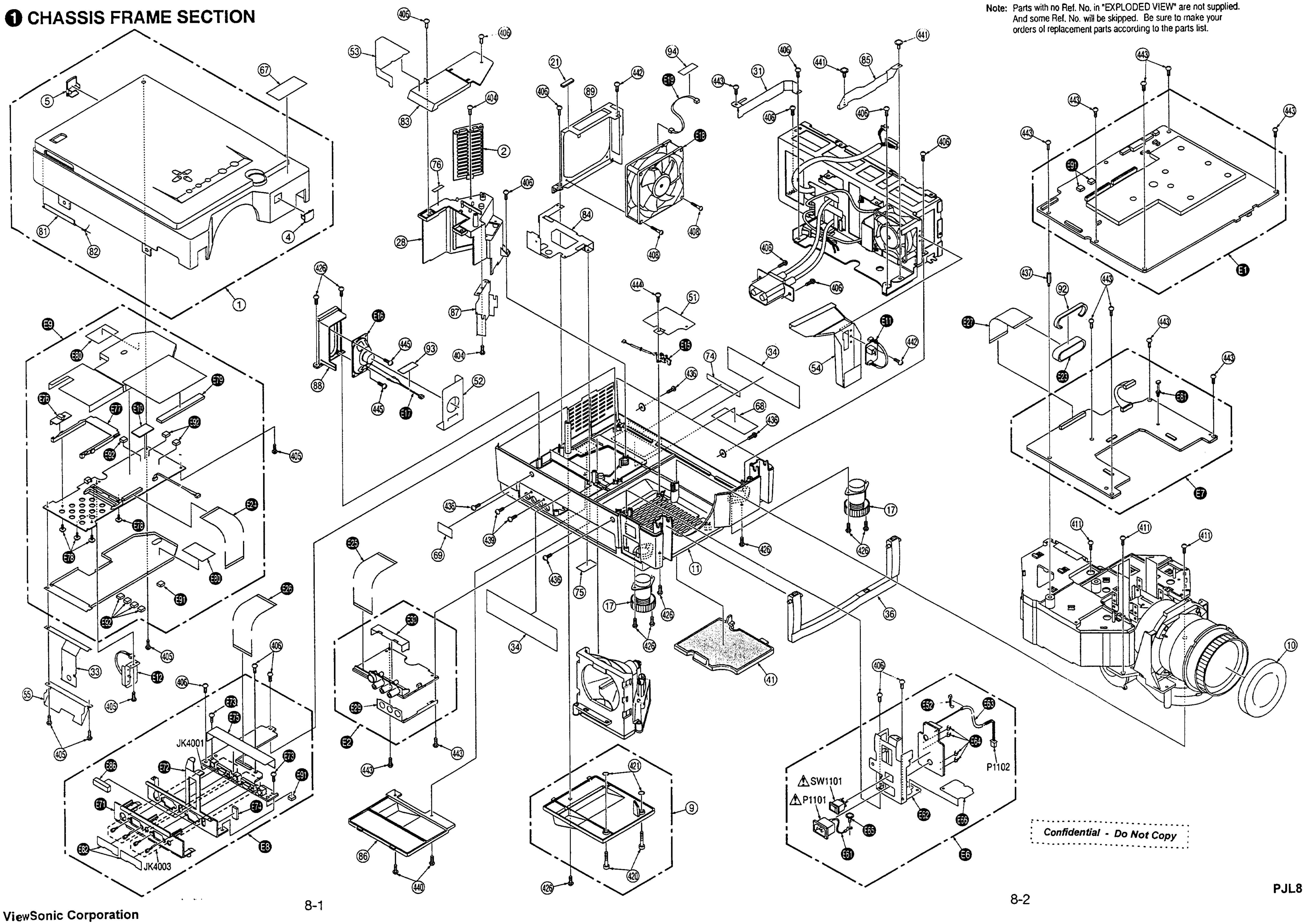
LSJB01113-1

Note:
Circuit Board diagram of Main Power C.B.A. is not included is Service Manual. Because Main Power C.B.A. is supplied as a unit (C.B.A.) only.

EXPLODED VIEWS

❶ CHASSIS FRAME SECTION

Note: Parts with no Ref. No. in "EXPLODED VIEW" are not supplied.
And some Ref. No. will be skipped. Be sure to make your
orders of replacement parts according to the parts list.



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E1
E2
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E51
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E53
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E61
E62
E71
E72
E73
E74
E75
E76
E77
E78
E79
E80
E81
E82
E86
E91
E92
JK4001
JK4003
SW1101
P1101
P1102

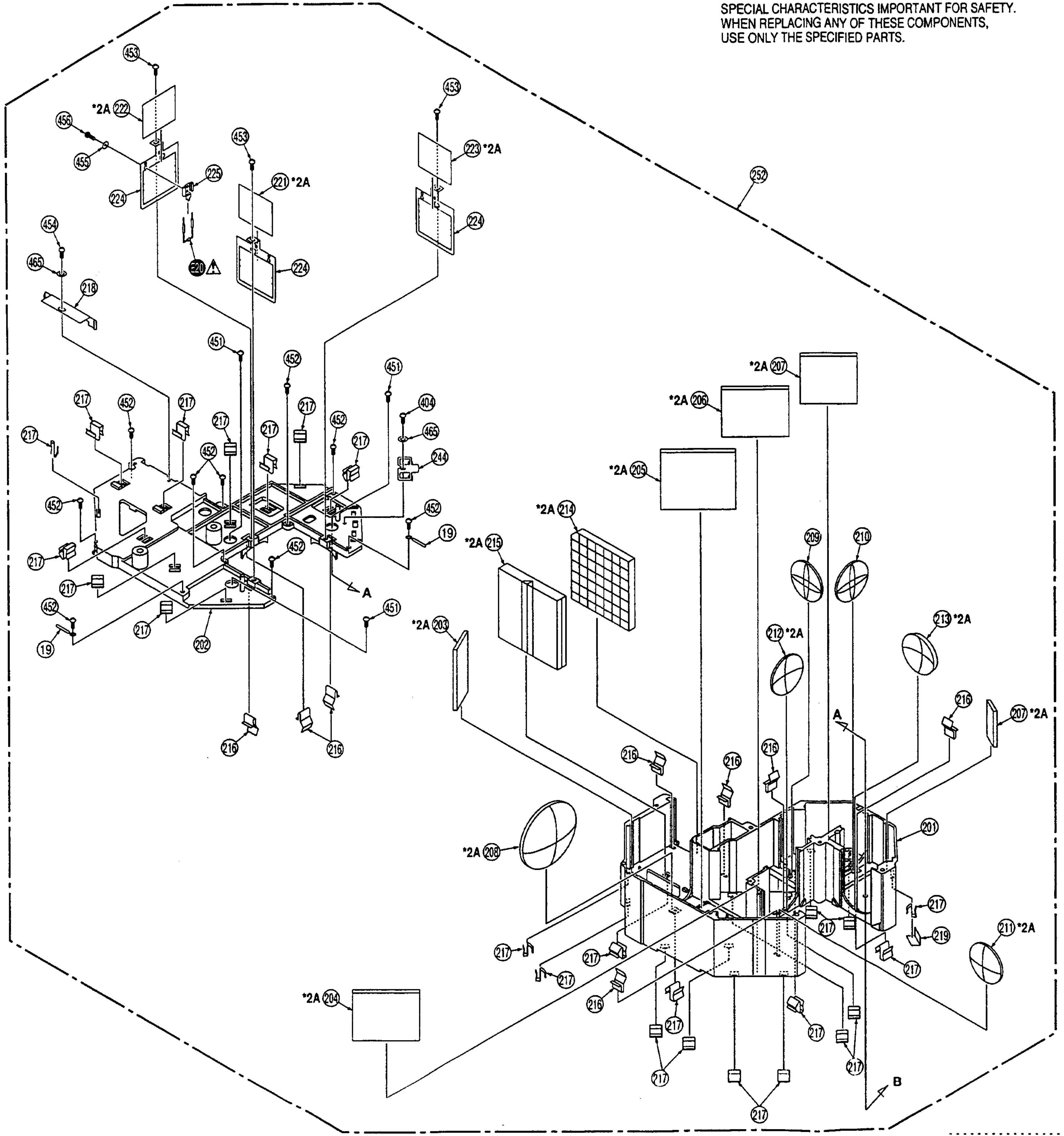
❷ OPTICAL BLOCK SECTION

IMPORTANT SAFETY NOTICE:

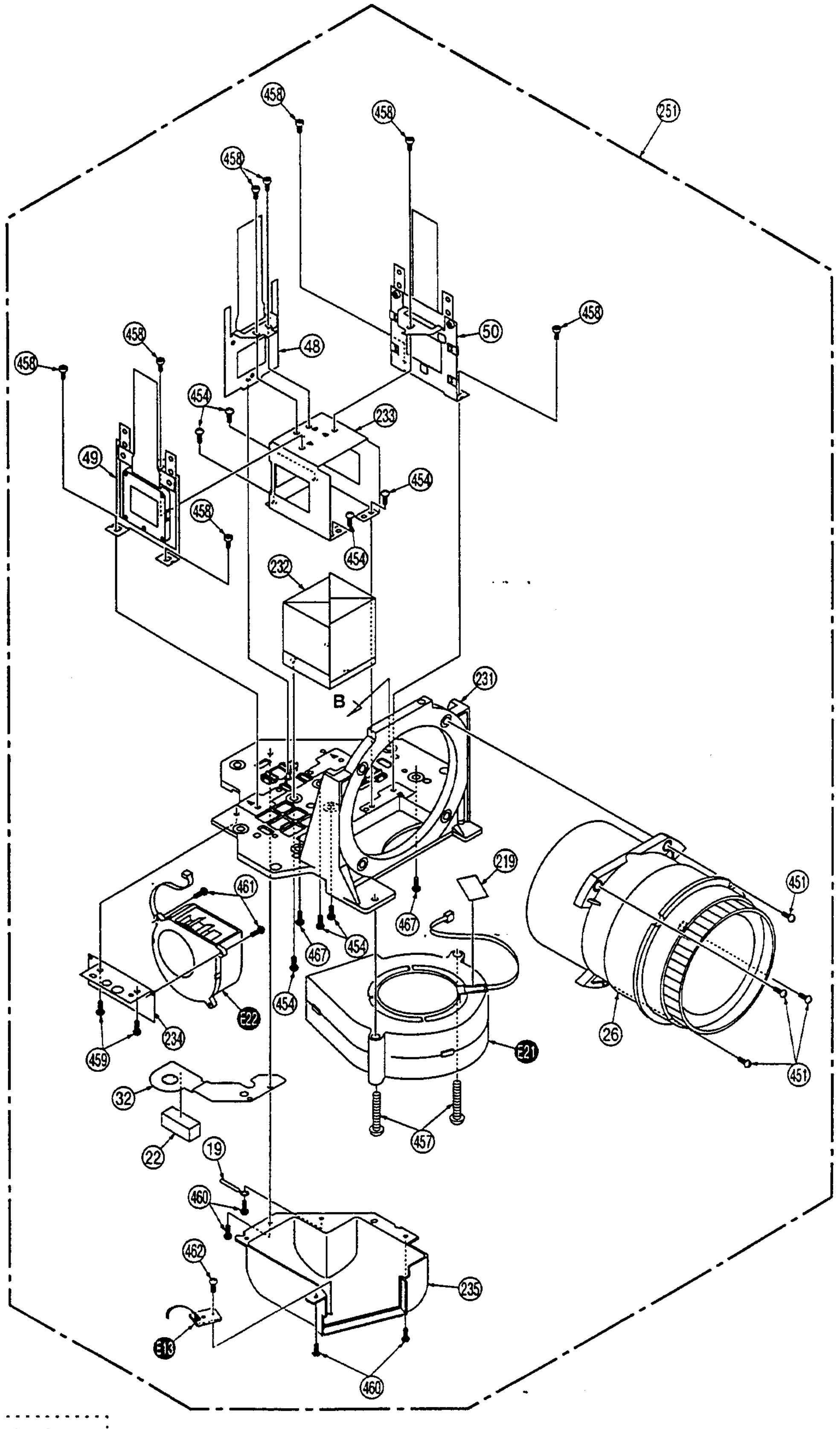
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

NOTE:

*2A: Make sure to mount the Polarizer, Mirror and Lens in correct position. Refer to "Disassembly of Optical Unit" section on page 3-14, 3-15.



453
*2A 222
456
455
224
225
453
221 *2A
E20 ⚠
224
453
223 *2A
224
252
454
465
218
451
452
451
217
452
217
217
217
217
452
217
404
465
244
452
452
19
217
217
452
217
217
202
19
A
451
216
216
*2A 207
*2A 206
*2A 205
*2A 214
*2A 215
*2A 203
209
210
212 *2A
213 *2A
216
207 *2A
A
216
216
216
201
*2A 208
217
217
219
217
211 *2A
217
217
216
217
217
217
217
*2A 204
217
B



251
458
458
458
458
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458
458
454
233
49
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458
454
232
B
231
219
461
467
467
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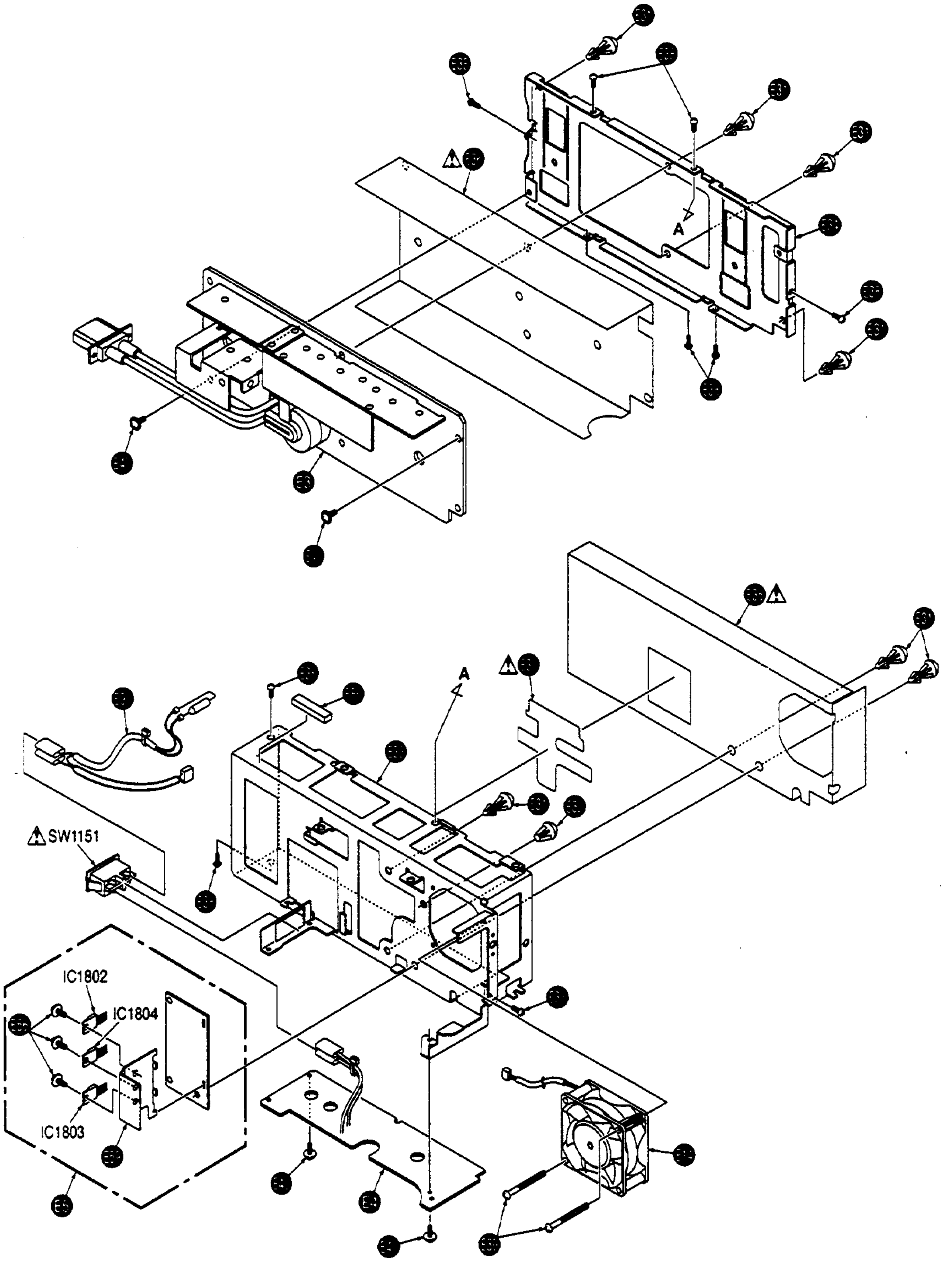
451
26
234
E22
459
E21
451
32
457
22
19
460
462
235
E18
460

❸ MAIN POWER SECTION

IMPORTANT SAFETY NOTICE:

COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.


A
A
⚠SW1151
IC1802
IC1804
IC1803

④ PACKING PARTS AND ACCESSORIES SECTION

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

Note: Refer to Section 10, *Engineering Change Supplement,* for a complete and correct list of ViewSonic parts and exploded views for this product.

REPLACEMENT PARTS LISTS

BEFORE REPLACING PARTS, READ THE FOLLOWING:

1. Use only original replacement parts:
   To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list.
2. **IMPORTANT SAFETY NOTICE**
   Components identified by the sign ⚠ have special characteristics important for safety. When replacing any of these components, use only the specified parts.
3. SPECIAL NOTE
   All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "ELECTROSTATICALLY SENSITIVE (ES) DEVICES" section of this service manual.
4. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
5. Parts different in shape or size may be used. However, only interchangeable parts will be supplied as service replacement parts.

Mechanical Replacement Notes

1. Section No. of parts shown in Exploded Views are indicated in the Remarks column.
2. Abbreviation
   RTL: Retention Time Limited
   This indicates that the retention time is limited for this item. After the discontinuation of this item in production, it will no longer be available.

Electrical Replacement Notes

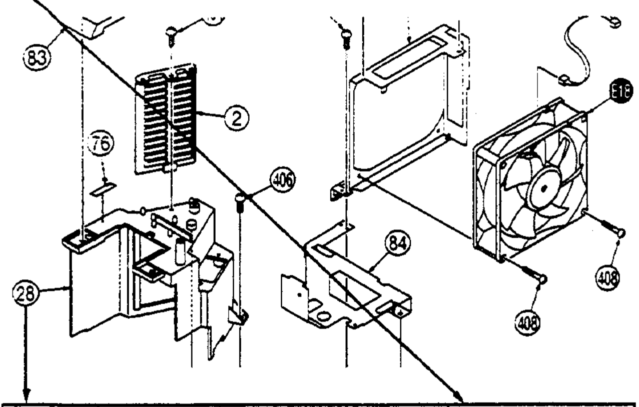
1. Item numbers with capital letter E (Example: E1, E2,...) in the Ref. No. column are shown in the exploded views. The E item numbers are also printed on the same page at the top of the column.
2. The parts with "■" mark are supplied individually or as a unit. The parts with "▲" mark are supplied individually or as a unit, and are included in "■" parts listed directly above in the parts list. The parts with "□" mark are supplied as a unit. (individual parts are not supplied.)
3. Unless otherwise specified;
   All resistors are in ohms, 1/4W, +/-5%, carbon,
   K = 1,000 ohm, M = 1,000 kohm.
   All capacitors are in microfarads, P = micromicrofarad, +/-10%.
   All coils are in microhenries, M = 1,000 microhenry, +/-10%.
4. Abbreviation
   RTL: Retention Time Limited
   This indicates that the retention time is limited for this item. After the discontinuation of this item in production, it will no longer be available.
   NR: Non Repairable Board Ass'y
   MGF CHIP: Metal Glaze Film Chip
   C CHIP: Ceramic Chip
   COMPLX CMP: Complex Component
   W FLMPRF: Wirewound Flameproof
   C.B.A.: Circuit Board Assembly
   P.C.B.: Printed Circuit Board
   E.S.D.: Electrostatically Sensitive Devices
5. SERVICE OF CHIP PARTS
   When servicing chip parts, please use a soldering iron of less than 30 watts. Refer to "IC, TRANSISTOR AND CHIP PART INFORMATION" page.
6. The parts with "●" are 0 ohm resistor. When replacing, a wire can be substituted for a 0 ohm resistor.
7. Inlet C.B.A. replacement note:
   LSEP01113B1 or LSEP01113A1 is used for Inlet C.B.A. However, for parts standardization, only LSEP01113B1 is supplied as a replacement. Please note that LSEP01113B1 and LSEP01113A1 are interchangeable. Only interchangeable parts will be supplied as a replacement for individual parts.
8. Card C.B.A. replacement note:
   LSEP0619B1 or LSEP0619A1 is used for Card C.B.A. However, for parts standardization, only LSEP0619B1 is supplied as a replacement. Please note that LSEP0619B1 and LSEP0619A1 are interchangeable. Only interchangeable parts will be supplied as a replacement for individual parts.
9. Replacement note:
   Following C.B.A.s are supplied as a Unit(C.B.A.) only. Please note that individual parts on C.B.A. are **NOT** supplied.
   - E3 Main Power C.B.A.
   - E11 IR Sensor Front C.B.A.
   - E12 IR Sensor Rear C.B.A.
   - E13 Thermistor 2 C.B.A.

MECHANICAL REPLACEMENT PARTS LIST

<The complete Exploded Views are shown in this manual.>

EXPLODED VIEWS

❶ CHASSIS FRAME SECTION



Ref. No.	Part No.	Part Name	Remarks
		MECHANISM PARTS ON CHASSIS	
			(Section No.)
1	LSYF0141	TOP COVER UNIT	1
2	LSMP0113	FAN PIECE	1
4	LSGP0121	FRONT IR PIECE	1
5	LSYF0145	REAR IR PIECE UNIT	1
9	LSYF0211	LAMP COVER UNIT	1
10	LSKF0152	LENS CAP	1
11	LSMP0124	BOTTOM COVER	1
17	LSYF0044	FOOT UNIT	1
19	VJR3	CLAMPER	2
21	LSMT0028	CUSHION, POLYURETANE+NYLON	1
22	LSMT0031	CUSHION, POLYURETANE+NYLON	2
26	LSDL0030	PROJECTION LENS	2
28	LSMP0110	LAMP HOUSE	1
31	LSSC0176	FCC PLATE-B, TINPLATE	1
32	LSSC0178	FCC PLATE-D, TINPLATE	2
33	LSSC0179	FCC PLATE-E, TINPLATE	1
34	LSSC0200	SHIELD SHEET-B	1
36	LSKH0040	HANDLE	1
41	LSYF0143	FILTER COVER UNIT	1
48	LSXA0205	LCD GREEN UNIT	2
49	LSXA0204	LCD RED UNIT	2
50	LSXA0206	LCD BLUE UNIT	2
51	LSMZ0153	FILTER BARRIER	1
52	LSMZ0157	SPEAKER BARRIER	1
53	LSMZ0158	DUCT BARRIER	1
54	LSMZ0161	WATER BARRIER	1
55	LSMZ0162	CARD BARRIER	1
57	LSQL0465	CAUTION LABEL TOP	1
58	LSQL0440	CAUTION LABEL BOTTOM-A	1
59	LSQL0441	CAUTION LABEL BOTTOM-B	1
74	LSQL0442	CAUTION LABEL BOTTOM-C	1
75	LSQL0443	CAUTION LABEL BOTTOM-D	1
76	LSQL0446	FUSE LABEL	1
81	LSKF0158	CARD DOOR-LID	1
82	LSMB0137	DOOR SPRING	1
83	LSMP0114	LAMP AIR DUCT	1
84	LSMA0265	VIDEO PLATE, STEEL	1
85	LSSC0168	JOINT PLATE, TINPLATE	1
86	LSKF0162	VIDEO COVER	1
87	LSMA0270	LAMP CONNECTOR COVER	1
88	LSKM0130	SPEAKER COVER	1
89	LSMA0303	FAN PLATE, STEEL	1
92	VMFS0030	SHEET	1
93	VMFS0129	SHEET	1
94	VMFS0281	SHEET	1

Ref. No.	Part No.	Part Name	Remarks
101	LSPG0459	PACKING CASE, PAPER	4
102	LSPN0098	TOP CUSHION, STYROFOAM	4
103	LSPN0099	BOTTOM CUSHION FRONT, STYROFOAM	4
104	LSPN0100	BOTTOM CUSHION REAR, STYROFOAM	4
105	VPFS0131	BAG, POLYETHYLENE	4
106	LSQF0062	FAN BAG	4
107	LRQ90017	INFRARED REMOTE CONTROL UNIT	4
108	VJAS0179	AC CORD W/PLUG	⚠ 4
111	LSJA0133	DOS/V-VGA COMMU CABLE W/PLUG	4
114	LSJA0074	VIDEO RCA COMMU CABLE W/PLUG	4
116	LSJA0076	AUDIO RCA COMMU CABLE W/PLUG	4
117	LSJA0077	RS232C COMMU CABLE W/PLUG	4
118	LSJA0078	RS232C 9P ADAPTOR	4
119	LSJA0079	RS232C 25P ADAPTOR	4
125	LSJA0158	MAC ADAPTOR	4
131	LSFT0034	PRO-MOUSE DRIVER FD FOR	4
		WINDOWS 95	
132	LSFT0035	PRO-MOUSE DRIVER FD FOR	4
		WINDOWS 3.1	
133	LSFT0036	PRO-MOUSE DRIVER FD FOR	4
		MACINTOSH	
134	LSFT0037	JPEG CONVERTER FD FOR	4
		WINDOWS 95	
201	LSMP0117	OPTICAL BLOCK BOTTOM CASE	2
202	LSMP0118	OPTICAL BLOCK TOP CASE	2
203	LSDL0026	FULL MIRROR	2
204	LSDL0027	FULL MIRROR-RED	2
205	LSDL0024	DICHROIC MIRROR-CYAN	2
206	LSDL0025	DICHROIC MIRROR-GREEN	2
207	LSDL0028	FULL MIRROR-BLUE	2
208	LSDL0037	CONDENSER LENS	2
209	LSDL0038	RELAY LENS-1	2
210	LSDL0039	RELAY LENS-2	2
211	LSDL0034	FIELD LENS-RED	2
212	LSDL0035	FIELD LENS-GREEN	2
213	LSDL0036	FIELD LENS-BLUE	2
214	LSDL0032	INTEGRATOR	2
215	LSDL0031	P/S CONVERTER	2
216	LSMC0058	SPRING	2
217	LSMC0065	SPRING	2
218	LSMA0279	INTEGRATOR ADJUSTER	2
219	VMFS0277	SHEET	2
221	LSDL0020	POLARIZER-RED	2
222	LSDL0021	POLARIZER-GREEN	2
223	LSDL0022	POLARIZER-BLUE	2
224	LSMA0278	POLARIZER ADJUSTER	2
225	LSMC0063	SENSOR SPRING	2
231	LSMK0012	OPTICAL BLOCK BASE	2
232	LSDL0029	DICHROIC PRISM	2
233	LSMA0276	LCD HOLDER	2
234	LSMA0275	FAN PLATE, STEEL	2
235	LSMP0116	DUCT	2
244	LSMA0277	FIELD MIRROR-BLUE ADJUSTER	2
251	LSXA0207	OPTICAL BASE UNIT	2 RTL
252	LSXA0211	OPTICAL BLOCK UNIT	2 RTL

Ref. No.	Part No.	Part Name	Remarks
		SCREWS AND WASHERS	
404	XTV3+8G	TAPPING SCREW, STEEL	1, 2
405	XTV3+8GFR	TAPPING SCREW, STEEL	1
406	XTV3+10GFR	SCREW, STEEL	1
408	XTV3+30J	TAPPING SCREW, STEEL	1
411	XTN4+15AFR	SCREW, STEEL	1
420	LSHD0030	SCREW, STEEL	1
421	XUC3FP	E-RING, STEEL	1
426	XTN3+12GFR	SCREW, STEEL	1
436	XTB4+8FFZ	TAPPING SCREW, STEEL	1
437	LSHD0031	HEXAGON SCREW, STEEL	1
439	XTB3+14GFZ	SCREW, STEEL	1
440	XTS3+8GFZ	SCREW, STEEL	1
441	XYE3+FF6FR	SCREW W/WASHER, STEEL	1
442	XTV3+4FFR	TAPPING SCREW, STEEL	1
443	XTW3+6WR	TAPPING SCREW, STEEL	1
444	XTV26+6GFR	TAPPING SCREW, STEEL	1
445	XTV3+6G	TAPPING SCREW, STEEL	1
451	XSN4+10FZ	SCREW, STEEL	2
452	XTN3+12G	SCREW, STEEL	2
453	XTN26+6G	TAPPING SCREW, STEEL	2
454	XSN3+6FZ	SCREW, STEEL	2
455	LSWA0296	WASHER, STEEL	2
456	XSN2+4	BIND SCREW, STEEL	2
457	XSB4+35	SCREW, STEEL	2
458	XSN3+4FR	SCREW, STEEL	2
459	XSN3+4FZ	SCREW, STEEL	2
460	XYN3+F6FZ	SCREW, STEEL	2
461	XTN26+8F	TAPPING SCREW, STEEL	2
462	XTN2+4GFR	TAPPING SCREW, STEEL	2
465	XWG3	WASHER, STEEL	2
467	XTN4+12A	SCREW, STEEL	2
		SERVICE FIXTURES AND TOOLS	
	LSUZ0004	EXTENSION CABLE KIT	
	LSUA0010	EXTENSION CABLE-1	
	LSUA0011	EXTENSION CABLE-2	
	LSUA0012	RESISTOR UNIT-1 (P6003)	
	LSUA0013	RESISTOR UNIT-2 (P6004)	

ELECTRICAL REPLACEMENT PARTS LIST

(E1, E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13)

Ref. No.	Part No.	Part Name	Remarks
		PRINTED CIRCUIT BOARD ASSEMBLY	
E1	LSEP0327A1	MAIN C.B.A.	■ E.S.D. RTL
E2	LSEP0321A1	VIDEO C.B.A.	■ E.S.D. RTL
E3	LSEP01115A1	MAIN POWER C.B.A. NR	□
E4	LSEP01114A1	LINE FILTER C.B.A.	■ RTL
E5	LSEP01116A1	FAN DRIVE C.B.A.	■ RTL
E6	LSEP01113B1	INLET C.B.A.	■ RTL
E7	LSEP0320A1	LCD DRIVE C.B.A.	■ E.S.D. RTL
E8	LSEP0322A1	JACK C.B.A.	■ E.S.D. RTL
E9	LSEP0619B1	CARD C.B.A.	■ E.S.D. RTL
E10	LSEP0089A1	CARD CHILD C.B.A.	▲ E.S.D. RTL
E11	LSEP0052A1	IR SENSOR FRONT C.B.A. NR	□
E12	LSEP0053A1	IR SENSOR REAR C.B.A. NR	□
E13	LSEP0067A1	THERMISTOR 2 C.B.A. NR	□
		MAIN C.B.A.	■
		INTEGRATED CIRCUITS	
IC1901	PQ20VZ5U	IC, LINEAR SWITCHING REGULATOR	
IC1902	PQ20VZ5U	IC, LINEAR SWITCHING REGULATOR	
IC1903	PQ20VZ1U	IC, LINEAR SWITCHING REGULATOR	
IC2001	TC74LCX541F	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC2002	TC74LCX541F	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC2003	TC74LCX541F	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC2004	UPD42280GU25	IC, 2M D RAM MEMORY	E.S.D.
IC2005	UPD42280GU25	IC, 2M D RAM MEMORY	E.S.D.
IC2006	CXA3026Q	IC, LOGIC A/D CONVERTER	E.S.D.
IC2007	UPC29M33T-E1	IC, LINEAR +3.3V REGULATOR	
IC2008	M35045-056SP	IC, LOGIC OSD	E.S.D.
IC2009	UPD97226-001	IC, CMOS GATE ARRAY	E.S.D.
IC2010	TLC2933IPW	IC, LINEAR VCO & PFD	
IC2011	TLC2932IPW	IC, LINEAR VCO	
IC2013	MC44200FT	IC, LINEAR D/A CONVERTER	
IC2015	UPD65802-186	IC, CMOS GATE ARRAY	E.S.D.
IC2016	TC74LCX245F	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC2017	AN78L05-TA	IC, LINEAR +5V REGULATOR	
IC2501	TC74LCX541F	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC2502	TC74LCX541F	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC2503	TC74LCX541F	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC2504	TC74LCX541F	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC2505	TC74LCX541F	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC2506	TC74LCX541F	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC2507	UPD42280GU25	IC, 2M D RAM MEMORY	E.S.D.
IC2508	UPD42280GU25	IC, 2M D RAM MEMORY	E.S.D.
IC2509	UPD42280GU25	IC, 2M D RAM MEMORY	E.S.D.
IC2510	UPD42280GU25	IC, 2M D RAM MEMORY	E.S.D.
IC2511	CXA3026Q	IC, LOGIC A/D CONVERTER	E.S.D.
IC2512	CXA3026Q	IC, LOGIC A/D CONVERTER	E.S.D.
IC2513	UPC29M33T-E1	IC, LINEAR +3.3V REGULATOR	
IC2514	UPC29M33T-E1	IC, LINEAR +3.3V REGULATOR	
IC2515	UPD97226-001	IC, CMOS GATE ARRAY	E.S.D.
IC2516	UPD97226-001	IC, CMOS GATE ARRAY	E.S.D.
IC3001	M52348FP	IC, LINEAR INPUT SELECT	
IC3002	M52722SP	IC, LINEAR OSD MIX/AMP	
IC6002	AT24C02NSCTL	IC, 2K EEP ROM	E.S.D.
IC6005	AT24C02NSCTL	IC, 2K EEP ROM	E.S.D.
IC6006	M62352FP	IC, LINEAR D/A CONVERTER	
IC6007	HD6433437W41	IC, 8BIT MICROPROCESSOR	E.S.D.
IC6009	MN1380-R	IC, LOGIC RESET	E.S.D.
IC6010	LN513RAM	7 SEGMENT LED	
		TRANSISTORS	
Q1901	2SK2159(T)	F.E.T. CHIP	
Q1902	2SK2839TE16L	F.E.T. CHIP	
Q1903	2SB1073(Q,R)	CHIP	
Q1904	2SD601A	CHIP	
Q1905	2SB709A	CHIP	
Q1906	UN221L	CHIP	
Q2001	UN2113	CHIP	
Q2002	UN2113	CHIP	
Q2003	2SD601A	CHIP	
Q2004	UN2113	CHIP	
Q2005	2SD1819(R)	CHIP	
Q2006	2SD1819(R)	CHIP	
Q2007	2SD1819(R)	CHIP	
Q2008	2SB1218A(R)	CHIP	
Q2009	2SB1218A(R)	CHIP	
Q2010	2SB1218A(R)	CHIP	
Q3001	2SB709A	CHIP	
Q3002	2SB709A	CHIP	
Q3003	2SB709A	CHIP	
Q3004	2SB709A	CHIP	
Q3005	2SD601A	CHIP	
Q3006	2SD874A(R,S)	CHIP	
Q3007	2SB766A(R)	CHIP	
Q3301	2SB709A	CHIP	
Q3302	2SC521600L	CHIP	
Q3303	2SD601A	CHIP	
Q3304	2SC521600L	CHIP	
Q3305	2SD601A	CHIP	
Q3306	2SB709A	CHIP	
Q3307	2SC521600L	CHIP	
Q3308	2SD601A	CHIP	
Q3309	2SB709A	CHIP	
Q3310	2SB709A	CHIP	
Q3311	2SC521600L	CHIP	
Q3315	2SB709A	CHIP	
Q3316	2SC521600L	CHIP	
Q3317	2SB709A	CHIP	
Q3318	2SC521600L	CHIP	
Q3319	2SC521600L	CHIP	
Q3320	2SB709A	CHIP	
Q3321	2SC521600L	CHIP	
Q3322	2SC521600L	CHIP	
Q3323	2SB709A	CHIP	
Q3324	2SD601A	CHIP	
Q3325	2SC521600L	CHIP	
Q3326	2SC521600L	CHIP	
Q3327	2SC521600L	CHIP	
Q6001	2SD601A	CHIP	
Q6002	XN4401	COMPLX CMP SI NPN/PNP CHIP	
Q6003	XN4501	COMPLX CMP SI NPN CHIP	
Q6004	2SD601A	CHIP	
Q6005	UN2213	CHIP	
Q6006	2SD601A	CHIP	
Q6007	2SB709A	CHIP	
Q6008	2SD601A	CHIP	
Q6009	2SD601A	CHIP	
Q6010	2SB709A	CHIP	
Q6011	2SB709A	CHIP	
Q6012	2SD601A	CHIP	
		DIODES	
D1901	MA111	CHIP	
D1902	MA111	CHIP	
D2001	MA111	CHIP	
D2501	MA111	CHIP	
D2502	MA111	CHIP	
D3301	MA111	CHIP	
D6002	MA3068-M	ZENER CHIP 6.8V	
D6003	MA3068-M	ZENER CHIP 6.8V	
D6005	LN2162C13	LED	
D6006	MA111	CHIP	
D6015	MA111	CHIP	
D6016	MA111	CHIP	
D6017	MA111	CHIP	
D6018	MA111	CHIP	
		RESISTORS	
R1902	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R1904	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R1905	ERJ6GEYJ821V	MGF CHIP 1/10W 820	
R1906	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R1907	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R1908	ERJ8GEYJ561V	MGF CHIP 1/8W 560	
R1909	ERJ8GEYJ561V	MGF CHIP 1/8W 560	

Ref. No.	Part No.	Part Name	Remarks
R1910	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R1911	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R1912	ERJ8GEYJ102V	MGF CHIP 1/8W 1K	
R1913	ERJ8GEYJ102V	MGF CHIP 1/8W 1K	
R1914	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R1915	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R1916	VRJSD6D1102V	MGF CHIP ±0.5% 1/10W 11K	
R1917	EVNCYAA03B22	VARIABLE 200	
R1918	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R1919	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R1920	VRJSD6D8200V	MGF CHIP ±0.5% 1/10W 820	
R1921	VRJSD6D1102V	MGF CHIP ±0.5% 1/10W 11K	
R1922	VRJSD6D1001	MGF CHIP ±0.5% 1/10W 1K	
R1923	VRJSD6D1002V	MGF CHIP ±0.5% 1/16W 10K	
R1924	VRJSD6D1001	MGF CHIP ±0.5% 1/10W 1K	
R1928	ERJ6GEYJ682V	MGF CHIP 1/10W 6.8K	
R1929	VRJSD6D2200V	MGF CHIP ±0.5% 1/10W 220	
R1930	ERJ6GEYJ472V	MGF,CHIP 1/10W 4.7K	
R1931	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R1932	ERJ6GEYJ682V	MGF CHIP 1/10W 6.8K	
R1951	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R1952	VRJSD6D56R0V	MGF CHIP ±0.5% 1/10W 56	
R1956	ERDS2T0T	0	●
R1957	ERDS2T0T	0	●
R1958	ERDS2T0T	0	●
R2003	VLPS0090	CHIP	
R2004	VLPS0090	CHIP	
R2005	VLPS0090	CHIP	
R2006	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2007	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2008	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2009	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2010	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2011	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2012	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2014	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2015	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2016	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2017	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2018	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2019	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2020	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R2021	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R2026	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R2027	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R2028	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R2029	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R2041	ERJ6GEYG222V	MGF CHIP ±2% 1/10W 2.2K	
R2042	ERJ6GEYG302V	MGF CHIP ±2% 1/10W 3K	
R2043	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2044	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R2050	ERJ6GEYJ122V	MGF CHIP 1/10W 1.2K	
R2051	ERJ6GEYJ122V	MGF CHIP 1/10W 1.2K	
R2067	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R2068	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R2069	ERJ6GEYJ272V	MGF CHIP 1/10W 2.7K	
R2070	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R2073	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R2074	ERJ6ENF5600V	MGF CHIP ±1% 1/10W 560	
R2075	ERJ6ENF1500V	MGF CHIP ±1% 1/10W 150	
R2076	ERJ6GEYJ151V	MGF CHIP 1/10W 150	
R2077	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R2078	ERJ6ENF1500V	MGF CHIP ±1% 1/10W 150	
R2079	ERJ6GEYJ151V	MGF CHIP 1/10W 150	
R2080	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R2081	ERJ6ENF1500V	MGF CHIP ±1% 1/10W 150	
R2082	ERJ6GEYJ151V	MGF CHIP 1/10W 150	
R2083	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R2084	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R2085	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R2086	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R2087	ERJ6GEYJ391V	MGF CHIP 1/10W 390	
R2088	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R2089	ERJ6GEYJ105V	MGF CHIP 1/10W 1M	
R2090	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R2091	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R2100	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2102	ERJ6GEYJ681V	MGF CHIP 1/10W 680	
R2110	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●

Ref. No.	Part No.	Part Name	Remarks
R2111	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2115	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R2116	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2117	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2118	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2119	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2120	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2121	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2122	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2123	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2124	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2125	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2126	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2127	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2128	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2129	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2130	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2131	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2132	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2133	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2134	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2135	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2136	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2137	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2138	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2140	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R2201	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2202	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2501	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R2538	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R2539	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R2540	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R2544	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R2545	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R2546	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R2571	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R2572	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R3001	ERJ6GEYJ392V	MGF CHIP 1/10W 3.9K	
R3002	ERJ6GEYJ392V	MGF CHIP 1/10W 3.9K	
R3003	ERJ6GEYJ392V	MGF CHIP 1/10W 3.9K	
R3006	ERJ6GEYJ392V	MGF CHIP 1/10W 3.9K	
R3007	ERJ6GEYJ392V	MGF CHIP 1/10W 3.9K	
R3010	ERJ6GEYJ392V	MGF CHIP 1/10W 3.9K	
R3011	ERJ6ENF2201V	MGF CHIP ±1% 1/10W 2.2K	
R3012	ERJ6ENF1201V	MGF CHIP ±1% 1/10W 1.2K	
R3013	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R3014	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R3015	ERJ6ENF2201V	MGF CHIP ±1% 1/10W 2.2K	
R3016	ERJ6ENF1201V	MGF CHIP ±1% 1/10W 1.2K	
R3017	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R3018	ERJ6ENF2201V	MGF CHIP ±1% 1/10W 2.2K	
R3019	ERJ6ENF1201V	MGF CHIP ±1% 1/10W 1.2K	
R3020	ERJ6ENF2701V	MGF CHIP ±1% 1/10W 2.7K	
R3021	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R3022	ERJ6ENF2701V	MGF CHIP ±1% 1/10W 2.7K	
R3023	ERJ6GEYJ273V	MGF CHIP 1/10W 27K	
R3024	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R3025	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R3026	ERJ6GEYJ273V	MGF CHIP 1/10W 27K	
R3027	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R3028	ERJ6ENF2701V	MGF CHIP ±1% 1/10W 2.7K	
R3029	ERJ6GEYJ273V	MGF CHIP 1/10W 27K	
R3030	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R3031	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R3032	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R3033	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R3034	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R3035	ERJ6GEYJ393V	MGF CHIP 1/10W 39K	
R3036	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R3037	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R3038	ERJ6GEYJ680V	MGF CHIP 1/10W 68	
R3039	ERJ6GEYJ681V	MGF CHIP 1/10W 680	
R3040	ERJ6GEYJ821V	MGF CHIP 1/10W 820	
R3041	ERJ6GEYJ221V	MGF CHIP 1/10W 220	
R3042	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R3043	ERJ6GEYJ151V	MGF CHIP 1/10W 150	
R3046	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R3047	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3048	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●

Ref. No.	Part No.	Part Name	Remarks
R3049	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3301	ERJ6GEYJ152V	MGF CHIP 1/10W 1.5K	
R3302	ERJ6GEYJ333V	MGF CHIP 1/10W 33K	
R3303	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R3304	ERJ6GEYG391V	MGF CHIP ←2% 1/10W 390	
R3305	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R3306	ERJ6GEYG681V	MGF CHIP ←2% 1/10W 680	
R3307	ERJ6GEYJ152V	MGF CHIP 1/10W 1.5K	
R3308	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R3309	ERJ6GEYG391V	MGF CHIP ←2% 1/10W 390	
R3310	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R3311	ERJ6GEYG681V	MGF CHIP ←2% 1/10W 680	
R3312	ERJ6GEYJ152V	MGF CHIP 1/10W 1.5K	
R3313	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R3314	ERJ6GEYG391V	MGF CHIP ←2% 1/10W 390	
R3315	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R3316	ERJ6GEYG681V	MGF CHIP ←2% 1/10W 680	
R3317	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R3318	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R3319	ERJ6GEYJ272V	MGF CHIP 1/10W 2.7K	
R3320	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R3321	ERJ6GEYG820V	MGF CHIP ←2% 1/10W 82	
R3323	ERJ6GEYG471V	MGF CHIP ←2% 1/10W 470	
R3324	ERJ6GEYG820V	MGF CHIP ←2% 1/10W 82	
R3326	ERJ6GEYG471V	MGF CHIP ←2% 1/10W 470	
R3327	ERJ6GEYG820V	MGF CHIP ←2% 1/10W 82	
R3329	ERJ6GEYG471V	MGF CHIP ←2% 1/10W 470	
R3330	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R3331	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R3332	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R3333	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R3334	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R3335	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R3336	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R3337	ERJ6GEYJ152V	MGF CHIP 1/10W 1.5K	
R3338	ERJ6GEYJ182V	MGF CHIP 1/10W 1.8K	
R3339	ERJ6GEYJ182V	MGF CHIP 1/10W 1.8K	
R3340	ERJ6GEYJ182V	MGF CHIP 1/10W 1.8K	
R3341	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R3342	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R3343	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6001	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R6002	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R6004	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R6005	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R6006	ERJ6GEYJ681V	MGF CHIP 1/10W 680	
R6007	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6008	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6009	ERJ6GEYJ224V	MGF CHIP 1/10W 220K	
R6010	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R6011	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6014	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6015	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6016	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6017	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6018	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R6019	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6020	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R6021	ERJ6GEYJ393V	MGF CHIP 1/10W 39K	
R6022	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6023	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6024	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6025	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6026	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6027	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6028	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6029	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6030	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6031	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6032	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6033	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6034	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6036	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6037	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R6038	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6039	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6040	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6042	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	

Ref. No.	Part No.	Part Name	Remarks
R6043	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6046	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6047	ERJ6ENF3302	MGF CHIP ←1% 1/10W 33K	
R6052	ERJ6ENF3302	MGF CHIP ←1% 1/10W 33K	
R6053	ERJ6ENF3302	MGF CHIP ←1% 1/10W 33K	
R6054	ERJ6ENF3302	MGF CHIP ←1% 1/10W 33K	
R6055	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6056	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6057	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6058	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6059	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6060	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6061	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6062	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6063	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6064	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6065	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6066	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R6067	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6069	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6070	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6071	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6072	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R6073	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6074	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6075	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6076	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6077	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6080	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6081	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R6083	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6085	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6086	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6087	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6088	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6089	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6090	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6091	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6092	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6093	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6097	ERJ6GEYJ681V	MGF CHIP 1/10W 680	
R6098	ERJ6GEYJ681V	MGF CHIP 1/10W 680	
R6099	ERJ6GEYJ681V	MGF CHIP 1/10W 680	
R6100	ERJ6GEYJ681V	MGF CHIP 1/10W 680	
R6101	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6102	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6103	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R6104	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6105	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6106	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R6107	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R6108	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R6109	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6110	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6111	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R6112	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6113	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6114	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R6115	TRJ8GCYJ271V	MGF CHIP 1/8W 270	
R6116	TRJ8GCYJ271V	MGF CHIP 1/8W 270	
R6117	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6118	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R6119	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6120	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6121	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6122	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6125	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6126	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6129	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6130	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6131	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6132	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6133	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6134	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6135	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6136	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6139	ERJ6GEYJ681V	MGF CHIP 1/10W 680	
R6140	ERJ6GEYJ681V	MGF CHIP 1/10W 680	

Ref. No.	Part No.	Part Name	Remarks
R6141	ERJ6GEYJ681V	MGF CHIP 1/10W 680	
R6142	ERJ6GEYJ681V	MGF CHIP 1/10W 680	
R6143	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R6144	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6145	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6146	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6147	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6148	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6149	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6150	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6151	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6152	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6153	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6154	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6155	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6156	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R6157	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6158	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6159	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6160	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6161	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6162	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6163	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6164	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6165	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6166	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6167	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6168	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6169	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R6170	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R6171	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6172	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R6173	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R6174	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6175	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6176	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6177	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6178	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6179	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
		CAPACITORS	
C1901	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C1902	EEVHA1C470P	ELECTROLYTIC CHIP 16V 47	
C1903	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C1904	EEVHA1E330P	ELECTROLYTIC CHIP 25V 33	
C1905	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C1906	EEVHA0J101P	ELECTROLYTIC CHIP 6.3V 100	
C1907	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C1908	EEVHA0J101P	ELECTROLYTIC CHIP 6.3V 100	
C1913	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C1914	EEVHA1E100R	ELECTROLYTIC CHIP 25V 10	
C1915	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C1916	EEVHA1E100R	ELECTROLYTIC CHIP 25V 10	
C1917	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C1918	EEVHA1E100R	ELECTROLYTIC CHIP 25V 10	
C1919	EEVHA1E100R	ELECTROLYTIC CHIP 25V 10	
C1920	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C1921	EEVHA1E100R	ELECTROLYTIC CHIP 25V 10	
C1922	EEVHA1E100R	ELECTROLYTIC CHIP 25V 10	
C1924	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C1925	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C1951	EEVHA1C220R	ELECTROLYTIC CHIP 16V 22	
C1952	EEVHA1C220R	ELECTROLYTIC CHIP 16V 22	
C2001	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2002	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2003	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2004	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2005	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C2006	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2007	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2008	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2009	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C2010	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2011	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2012	EEVHA0J101P	ELECTROLYTIC CHIP 6.3V 100	
C2013	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2014	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	

Ref. No.	Part No.	Part Name	Remarks
C2015	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2016	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2017	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2018	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C2019	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2020	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2021	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2022	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2023	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2024	EEVHA0J101P	ELECTROLYTIC CHIP 6.3V 100	
C2025	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C2026	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2027	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2028	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2029	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2030	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2031	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2032	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2033	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2034	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2035	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2036	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2037	ECUV1E333KBN	C CHIP 25V 0.033	
C2038	ECUV1E683KBN	C CHIP 25V 0.068	
C2039	ECST1CY105	TANTALUM CHIP 16V 1	
C2040	ECUV1H472KBN	C CHIP 50V 4700P	
C2041	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2042	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2043	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C2044	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2045	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2046	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2047	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2048	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C2049	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2050	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C2051	ECEV1CA220S	ELECTROLYTIC CHIP 16V 22	
C2052	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2053	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C2054	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2055	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2056	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C2057	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2058	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2059	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2060	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C2061	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2062	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2064	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2067	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C2068	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2069	ECEV1HS010S	ELECTROLYTIC CHIP 50V 1	
C2070	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2071	ECEV1HS010S	ELECTROLYTIC CHIP 50V 1	
C2072	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2073	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2074	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2075	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2076	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C2077	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C2078	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C2079	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2080	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2081	ECUV1C474ZFN	C CHIP +80%-20% 16V 0.47	
C2082	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2083	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C2084	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2085	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C2086	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2087	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2088	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2089	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2090	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2091	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2092	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2093	ECUV1H100CCN	C CHIP +-0.25P 50V 10P	
C2094	ECUV1H100CCN	C CHIP +-0.25P 50V 10P	
C2095	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	

Ref. No.	Part No.	Part Name	Remarks
C2096	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2097	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C2098	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2099	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2102	ECUV1H101JCN	C CHIP +-5% 50V 100P	
C2103	ECUV1H101JCN	C CHIP +-5% 50V 100P	
C2104	ECUV1H101JCN	C CHIP +-5% 50V 100P	
C2105	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2106	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2110	ECUV1H103KBN	C CHIP 50V 0.01	
C2501	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C2502	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2503	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2504	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2505	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C2506	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2507	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2508	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2509	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2510	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2511	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2512	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2513	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2514	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2515	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2516	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2517	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2518	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2519	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C2520	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2521	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2522	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2523	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2524	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2525	EEVHA0J101P	ELECTROLYTIC CHIP 6.3V 100	
C2526	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C2527	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2528	EEVHA0J101P	ELECTROLYTIC CHIP 6.3V 100	
C2529	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2530	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2531	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2532	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2533	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2534	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C2535	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2536	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2537	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2538	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2539	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2540	EEVHA0J101P	ELECTROLYTIC CHIP 6.3V 100	
C2541	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C2542	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2543	EEVHA0J101P	ELECTROLYTIC CHIP 6.3V 100	
C2544	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2545	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2546	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2547	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2548	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2549	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2550	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2551	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2552	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2553	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2554	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2555	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2556	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2557	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2558	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2559	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2560	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2561	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2562	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2563	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2564	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2565	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2566	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2567	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2568	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	

Ref. No.	Part No.	Part Name	Remarks
C2569	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2570	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2571	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2572	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C2573	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2574	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2575	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C2576	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3001	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C3002	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3003	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3004	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3005	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3006	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C3007	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C3008	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3009	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3010	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C3011	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C3012	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3013	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C3014	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C3015	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C3016	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C3017	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C3018	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C3019	ECST1CY105	TANTALUM CHIP 16V 1	
C3022	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3023	ECEV1CA470S	ELECTROLYTIC CHIP 16V 47	
C3024	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3025	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C3026	ECST1CY105	TANTALUM CHIP 16V 1	
C3027	ECEV1CA470S	ELECTROLYTIC CHIP 16V 47	
C3028	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3029	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3030	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C3031	ECST1CY105	TANTALUM CHIP 16V 1	
C3033	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3034	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3036	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C3037	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C3038	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3039	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C3040	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3041	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C3301	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C3302	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C3303	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C3304	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3305	ECUV1H080CCN	C CHIP +-0.25P 50V 8P	
C3306	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3307	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C3308	ECUV1H080CCN	C CHIP +-0.25P 50V 8P	
C3309	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3310	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C3311	ECUV1H080CCN	C CHIP +-0.25P 50V 8P	
C3312	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3313	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C3314	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3315	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3316	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3317	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3318	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3319	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3320	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3321	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C3322	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3323	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3324	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6001	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6002	ECEV1CA470S	ELECTROLYTIC CHIP 16V 47	
C6003	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6004	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C6005	ECUV1H102KBN	C CHIP 50V 1000P	
C6006	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C6007	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C6008	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6009	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	

Ref. No.	Part No.	Part Name	Remarks
C6010	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6011	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6012	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6013	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6014	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6015	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6016	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6017	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6018	ECUV1H101JCN	C CHIP +-5% 50V 100P	
C6019	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6020	ECUV1H101JCN	C CHIP +-5% 50V 100P	
C6021	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C6022	ECUV1H101JCN	C CHIP +-5% 50V 100P	
C6023	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C6024	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C6025	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C6026	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C6027	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C6028	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6029	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6030	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C6032	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6033	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6034	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C6035	ECUV1H120JCN	C CHIP +-5% 50V 12P	
C6036	ECUV1H100CCN	C CHIP +-0.25P 50V 10P	
C6043	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C6044	ECUV1H101JCN	C CHIP +-5% 50V 100P	
C6045	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
		FILTERS	
FL2001	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2002	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2003	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2004	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2005	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2006	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2007	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2008	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2009	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2010	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2011	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2012	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2013	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2014	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2015	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2016	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2017	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2018	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2019	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2020	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2021	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2022	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2023	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2024	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2025	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2026	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2027	LSLFAA1H102	L/C COMPLX CMP 50V 1000P	
FL2028	LSLFAA1H102	L/C COMPLX CMP 50V 1000P	
FL2029	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2030	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2031	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2032	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2033	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2034	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2038	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2039	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2040	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2041	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2042	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2043	LSLFAA1H102	L/C COMPLX CMP 50V 1000P	
FL2044	LSLFAA1H102	L/C COMPLX CMP 50V 1000P	
FL2045	LSLFAA1H102	L/C COMPLX CMP 50V 1000P	
FL2046	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL2047	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2048	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2049	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	

Ref. No.	Part No.	Part Name	Remarks
FL2050	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2051	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2052	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL2055	NFM51R10P107	L/C COMPLX CMP 100	
FL2056	NFM51R10P107	L/C COMPLX CMP 100	
FL2058	NFM51R10P107	L/C COMPLX CMP 100	
FL2059	NFM51R10P107	L/C COMPLX CMP 100	
FL2060	NFM51R10P107	L/C COMPLX CMP 100	
FL2061	NFM51R10P107	L/C COMPLX CMP 100	
FL2062	NFM51R10P107	L/C COMPLX CMP 100	
FL2063	NFM51R10P107	L/C COMPLX CMP 100	
FL2064	LSLFBA1H470G	L/C COMPLX CMP 50V 47P	
FL2065	LSLFBA1H470G	L/C COMPLX CMP 50V 47P	
FL2066	LSLFBA1H470G	L/C COMPLX CMP 50V 47P	
FL2067	LSLFBA1H470G	L/C COMPLX CMP 50V 47P	
FL2068	LSLFBA1H470G	L/C COMPLX CMP 50V 47P	
FL2069	LSLFBA1H470G	L/C COMPLX CMP 50V 47P	
FL2501	NFM51R10P107	L/C COMPLX CMP 100	
FL2502	NFM51R10P107	L/C COMPLX CMP 100	
FL2503	NFM51R10P107	L/C COMPLX CMP 100	
FL2504	NFM51R10P107	L/C COMPLX CMP 100	
FL2505	NFM51R10P107	L/C COMPLX CMP 100	
FL2506	NFM51R10P107	L/C COMPLX CMP 100	
FL2507	NFM51R10P107	L/C COMPLX CMP 100	
FL2508	NFM51R10P107	L/C COMPLX CMP 100	
FL2509	NFM51R10P107	L/C COMPLX CMP 100	
FL2510	NFM51R10P107	L/C COMPLX CMP 100	
FL2511	NFM51R10P107	L/C COMPLX CMP 100	
FL2512	NFM51R10P107	L/C COMPLX CMP 100	
		COILS	
L2024	VLPS0090	CHIP	
L2025	VLPS0090	CHIP	
L2026	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
L2027	VLPS0090	CHIP	
L2029	FBM2125HS420	CHIP 42	
L2030	FBM2125HS420	CHIP 42	
L2031	FBM2125HS420	CHIP 42	
L2032	FBM2125HS420	CHIP 42	
L2033	VLQ0163K220	CHIP 22	
L2034	VLQ0163K220	CHIP 22	
L2035	VLQ0163K220	CHIP 22	
L2036	VLQ0163K220	CHIP 22	
L2037	FBM2125HS420	CHIP 42	
L2038	VLPS0090	CHIP	
L2039	VLPS0090	CHIP	
L2040	FBM2125HS420	CHIP 42	
L2041	VLPS0090	CHIP	
L2042	VLPS0090	CHIP	
L2043	VLQ0163K220	CHIP 22	
L2044	VLQ0163K220	CHIP 22	
L2045	VLQ0163J101	CHIP +-5% 100	
L2049	VLPS0090	CHIP	
L2050	VLPS0090	CHIP	
L2051	VLPS0090	CHIP	
L2052	VLPS0090	CHIP	
L2053	VLPS0090	CHIP	
L2054	VLPS0090	CHIP	
L2055	VLPS0090	CHIP	
L2056	VLPS0090	CHIP	
L2057	VLPS0090	CHIP	
L2058	VLPS0090	CHIP	
L2059	VLPS0090	CHIP	
L2060	VLPS0090	CHIP	
L2061	VLPS0090	CHIP	
L2062	VLPS0090	CHIP	
L2063	VLPS0090	CHIP	
L2064	VLPS0090	CHIP	
L2065	VLPS0090	CHIP	
L2066	VLPS0090	CHIP	
L2067	VLPS0090	CHIP	
L2068	VLPS0090	CHIP	
L2069	VLPS0090	CHIP	
L2070	VLPS0090	CHIP	
L2071	VLPS0090	CHIP	
L2072	VLPS0090	CHIP	
L2073	VLQ0163J101	CHIP +-5% 100	

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Ref. No.	Part No.	Part Name	Remarks
L2101	FBM2125HS420	CHIP 42	
L2102	VLPS0090	CHIP	
L2103	VLPS0090	CHIP	
L2104	ERJ14Y0R00H	MGF CHIP 0	●
L2105	ERJ14Y0R00H	MGF CHIP 0	●
L2501	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
L2502	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
L2505	FBM2125HS420	CHIP 42	
L2506	FBM2125HS420	CHIP 42	
L2507	FBM2125HS420	CHIP 42	
L2508	FBM2125HS420	CHIP 42	
L2509	FBM2125HS420	CHIP 42	
L2510	FBM2125HS420	CHIP 42	
L2511	FBM2125HS420	CHIP 42	
L2512	FBM2125HS420	CHIP 42	
L2513	VLQ0163K220	CHIP 22	
L2514	VLQ0163K220	CHIP 22	
L2515	VLQ0163K220	CHIP 22	
L2516	VLQ0163K220	CHIP 22	
L3001	VLQ0163K220	CHIP 22	
L3002	VLQ0163K220	CHIP 22	
L3301	VLQ0163K220	CHIP 22	
L3302	VLQ0163K220	CHIP 22	
L3303	VLQ0163K220	CHIP 22	
L3304	VLQ0163K220	CHIP 22	
L6001	VLQ0163K4R7	CHIP 4.7	
L6002	VLQ0163K4R7	CHIP 4.7	
L6003	VLQ0163K4R7	CHIP 4.7	
L6004	VLQ0163K4R7	CHIP 4.7	
L6005	VLQ0163K4R7	CHIP 4.7	
L6006	VLQ0163K4R7	CHIP 4.7	
		CRYSTAL OSCILLATOR	
X2001	VSXS0803		
X6001	VSXS0191-TB		
		PIN HEADERS	
P1901	VJPS0326	CONNECTOR	
P1902	VJPS0328	CONNECTOR	
P1903	VJPS0283	CONNECTOR	
P1904	VJPS0286	CONNECTOR	
P1905	VJPS3113	CONNECTOR	
P1906	VJPS0287	CONNECTOR	
P1907	VJPS0327	CONNECTOR	
P2001	LSJSAA35A	CONNECTOR	
P2002	LSJSAA40A	CONNECTOR	
P3001	LSJSAB31A	CONNECTOR	
P3002	LSJSAB31A	CONNECTOR	
P6001	VJPS0283	CONNECTOR	
P6003	VJPS0326	CONNECTOR	
P6004	VJPS0325	CONNECTOR	
P6005	VJPS0325	CONNECTOR	
		SWITCHES	
SW6001	EVQPHP03T	PUSH SWITCH	
SW6002	EVQPHP03T	PUSH SWITCH	
SW6003	EVQPHP03T	PUSH SWITCH	
SW6004	EVQPHP03T	PUSH SWITCH	
SW6005	EVQPHP03T	PUSH SWITCH	
SW6006	EVQPHP03T	PUSH SWITCH	
SW6007	EVQPHP03T	PUSH SWITCH	
SW6008	EVQPHP03T	PUSH SWITCH	
SW6009	EVQPHP03T	PUSH SWITCH	
SW6010	EVQPHP03T	PUSH SWITCH	
		FUSE & PROTECTOR	
PR1901	ICP-S1.2	IC PROTECTOR 1.2A	△
PR1902	ICP-S1.8	IC PROTECTOR 1.8A	△
PR1903	ICP-S1.8	IC PROTECTOR 1.8A	△
PR1905	ICP-S2.3	IC PROTECTOR 2.3A	△
		MISCELLANEOUS	
J1901	VLPS0059	FERRITE CORE	
E91	VMTS0059	CUSHION.RUBBER	

Ref. No.	Part No.	Part Name	Remarks
		VIDEO C.B.A.	■
		INTEGRATED CIRCUITS	
IC5001	NJM2234M	IC, LINEAR SWITCHING	
IC5002	NJM2246M	IC, LINEAR SWITCHING	
IC5003	M52306FP	IC, LINEAR SYNC DETECTOR	
IC5004	MC141627FT	IC, CMOS GATE ARRAY COMB	E.S.D.
		FILTER	
IC5005	MN3109S	IC, LOGIC 4XPLL	E.S.D.
IC5006	MM74HC123AMX	IC, CMOS STANDARD LOGIC	E.S.D.
		MULTIVIBRATOR	
IC5007	TDA4665T	IC, LINEAR DELAY	
IC5008	TDA8395P	IC, LINEAR SECAM DECODER	
IC5009	M52727SP	IC, LINEAR Y/C SIGNAL PROCESS	
IC5010	PQ20VZ5U	IC, LINEAR +8V REGULATOR	
IC5011	AT24C02NSCTL	IC, 2K EEP ROM	E.S.D.
		TRANSISTORS	
Q5001	2SB1218ARS	CHIP	
Q5002	2SD1819A(R,S)	CHIP	
Q5003	2SD1819A(R,S)	CHIP	
Q5004	2SD1819A(R,S)	CHIP	
Q5005	2SB1218ARS	CHIP	
Q5006	2SB1218ARS	CHIP	
Q5007	2SB1218ARS	CHIP	
Q5008	2SD1819A(R,S)	CHIP	
Q5009	2SB1218ARS	CHIP	
Q5010	2SB1218ARS	CHIP	
Q5011	UN5213	CHIP	
Q5012	2SD1819A(R,S)	CHIP	
Q5013	2SD1819A(R,S)	CHIP	
Q5014	2SD1819A(R,S)	CHIP	
Q5015	2SD1819A(R,S)	CHIP	
Q5017	2SC5216OOL	CHIP	
Q5019	2SC5216OOL	CHIP	
Q5020	2SB1218ARS	CHIP	
Q5021	2SD1819A(R,S)	CHIP	
Q5022	2SD1819A(R,S)	CHIP	
Q5023	2SB1218ARS	CHIP	
Q5026	2SC5216OOL	CHIP	
Q5027	2SC5216OOL	CHIP	
Q5028	2SD1819A(R,S)	CHIP	
Q5029	2SD1819A(R,S)	CHIP	
Q5030	2SD1819A(R,S)	CHIP	
Q5031	2SB1218ARS	CHIP	
Q5032	2SB1218ARS	CHIP	
Q5033	2SD1819A(R,S)	CHIP	
Q5034	UN5213	CHIP	
Q5035	UN5213	CHIP	
Q5036	2SD1819A(R,S)	CHIP	
Q5038	UN5213	CHIP	
Q5039	2SD1819A(R,S)	CHIP	
Q5040	2SD1819A(R,S)	CHIP	
Q5041	2SB1218ARS	CHIP	
Q5042	2SD1819A(R,S)	CHIP	
Q5043	2SD1819A(R,S)	CHIP	
Q5044	2SD1819A(R,S)	CHIP	
		DIODES	
D5001	RD6.2S	ZENER CHIP 6.2V	
D5002	RD6.2S	ZENER CHIP 6.2V	
D5003	RD6.2S	ZENER CHIP 6.2V	
D5004	RD6.2S	ZENER CHIP 6.2V	
D5005	RD6.2S	ZENER CHIP 6.2V	
D5006	RD6.2S	ZENER CHIP 6.2V	
D5007	RD6.2S	ZENER CHIP 6.2V	
D5008	RD6.2S	ZENER CHIP 6.2V	
D5009	RD6.2S	ZENER CHIP 6.2V	
D5010	RD6.2S	ZENER CHIP 6.2V	
D5011	RD6.2S	ZENER CHIP 6.2V	
D5013	MA111	CHIP	
D5014	RD6.2S	ZENER CHIP 6.2V	
D5015	RD6.2S	ZENER CHIP 6.2V	

Ref. No.	Part No.	Part Name	Remarks
		RESISTORS	
R5001	ERJ6ENF75R0V	MGF CHIP +-1% 1/10W 75	
R5002	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R5003	ERJ6ENF75R0V	MGF CHIP +-1% 1/10W 75	
R5004	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R5005	ERJ6ENF75R0V	MGF CHIP +-1% 1/10W 75	
R5006	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R5007	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R5008	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R5009	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5010	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R5011	ERJ6GEYJ152V	MGF CHIP 1/10W 1.5K	
R5012	ERJ6GEYJ471V	MGF CHIP 1/10W 470	
R5013	ERJ6GEYJ471V	MGF CHIP 1/10W 470	
R5014	ERJ6GEYJ122V	MGF CHIP 1/10W 1.2K	
R5015	ERJ6GEYJ271V	MGF CHIP 1/10W 270	
R5016	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R5017	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5018	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5019	ERJ6GEYJ331V	MGF CHIP 1/10W 330	
R5020	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R5021	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R5022	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5024	ERJ6GEYJ224V	MGF CHIP 1/10W 220K	
R5025	ERJ6GEYJ224V	MGF CHIP 1/10W 220K	
R5026	ERJ6GEYJ331V	MGF CHIP 1/10W 330	
R5027	ERJ6GEYJ182V	MGF CHIP 1/10W 1.8K	
R5028	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5029	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R5030	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R5031	ERJ6GEYJ184V	MGF CHIP 1/10W 180K	
R5032	ERJ6GEYJ394V	MGF CHIP 1/10W 390K	
R5033	ERJ6GEYJ334V	MGF CHIP 1/10W 330K	
R5034	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5035	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R5036	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5037	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R5038	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R5039	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R5040	ERJ6GEYJ684V	MGF CHIP 1/10W 680K	
R5041	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R5042	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5043	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R5044	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R5045	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5046	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5048	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R5049	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R5050	ERJ6GEYJ105V	MGF CHIP 1/10W 1M	
R5051	ERJ6GEYJ681V	MGF CHIP 1/10W 680	
R5052	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R5053	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R5054	ERJ6GEYJ681V	MGF CHIP 1/10W 680	
R5055	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R5056	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R5057	ERJ6GEYJ391V	MGF CHIP 1/10W 390	
R5058	ERJ6GEYJ152V	MGF CHIP 1/10W 1.5K	
R5059	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R5060	ERJ6GEYJ183V	MGF CHIP 1/10W 18K	
R5061	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R5062	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R5065	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5066	ERJ6GEYJ333V	MGF CHIP 1/10W 33K	
R5067	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R5068	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R5069	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R5072	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5073	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5074	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5075	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R5076	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R5077	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R5081	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5082	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5083	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5084	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R5085	ERJ6GEYJ560V	MGF CHIP 1/10W 56	

Ref. No.	Part No.	Part Name	Remarks
R5086	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R5087	ERJ6GEYJ152V	MGF CHIP 1/10W 1.5K	
R5088	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R5089	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R5090	ERJ6GEYJ333V	MGF CHIP 1/10W 33K	
R5091	ERJ6GEYJ823V	MGF CHIP 1/10W 82K	
R5092	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5093	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R5094	ERJ6GEYJ333V	MGF CHIP 1/10W 33K	
R5095	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R5096	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R5097	ERJ6GEYJ224V	MGF CHIP 1/10W 220K	
R5098	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R5099	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R5100	ERJ6GEYJ271V	MGF CHIP 1/10W 270	
R5102	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R5104	ERJ6GEYJ105V	MGF CHIP 1/10W 1M	
R5105	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5106	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5107	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R5108	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R5110	ERJ8GEYJ471V	MGF CHIP 1/8W 470	
R5111	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R5112	ERJ6GEYJ331V	MGF CHIP 1/10W 330	
R5113	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R5114	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5115	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R5116	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R5117	ERJ6GEYJ331V	MGF CHIP 1/10W 330	
R5118	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R5119	ERJ6GEYJ331V	MGF CHIP 1/10W 330	
R5120	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R5122	ERJ6GEYJ563V	MGF CHIP 1/10W 56K	
R5123	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R5126	ERJ6GEYJ182V	MGF CHIP 1/10W 1.8K	
R5127	ERJ6GEYJ182V	MGF CHIP 1/10W 1.8K	
R5128	ERJ6GEYJ684V	MGF CHIP 1/10W 680K	
R5129	ERJ6GEYJ561V	MGF CHIP 1/10W 560	
R5130	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R5132	ERJ6GEYJ823V	MGF CHIP 1/10W 82K	
R5133	ERJ6GEYJ823V	MGF CHIP 1/10W 82K	
R5134	ERJ6GEYJ224V	MGF CHIP 1/10W 220K	
R5135	ERJ6GEYJ125V	MGF CHIP 1/10W 1.2M	
R5136	ERJ6GEYJ224V	MGF CHIP 1/10W 220K	
R5137	ERJ6GEYJ182V	MGF CHIP 1/10W 1.8K	
R5138	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R5139	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R5141	ERJ6GEYJ154V	MGF CHIP 1/10W 150K	
R5142	ERJ6GEYG562V	MGF CHIP +-2% 1/10W 5.6K	
R5143	ERJ6GEYG102V	MGF CHIP +-2% 1/10W 1K	
R5144	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R5145	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R5146	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R5147	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5148	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R5151	ERJ6GEYG561V	MGF CHIP +-2% 1/10W 560	
R5152	ERJ6GEYG332V	MGF CHIP +-2% 1/10W 3.3K	
R5153	ERJ6GEYG332V	MGF CHIP +-2% 1/10W 3.3K	
R5154	ERJ6GEYG561V	MGF CHIP +-2% 1/10W 560	
R5155	ERJ6GEYJ225V	MGF CHIP 1/10W 2.2M	
R5156	ERJ6GEYJ225V	MGF CHIP 1/10W 2.2M	
R5157	ERJ6GEYJ225V	MGF CHIP 1/10W 2.2M	
		CAPACITORS	
C5001	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C5002	ECUV1E473ZFN	C CHIP +80%-20% 25V 0.047	
C5003	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C5004	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5005	ECEV1CA470S	ELECTROLYTIC CHIP 16V 47	
C5006	ECUV1H560JCN	C CHIP +-5% 50V 56P	
C5007	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5008	ECST1AY106	TANTALUM CHIP 10V 10	
C5009	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5010	ECST1AY106	TANTALUM CHIP 10V 10	
C5011	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C5012	ECUV1H472KBN	C CHIP 50V 4700P	
C5013	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	

Ref. No.	Part No.	Part Name	Remarks
C5014	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C5015	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C5016	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C5017	ECEV1VS2R2S	ELECTROLYTIC CHIP 35V 2.2	
C5018	ECEV1VS2R2S	ELECTROLYTIC CHIP 35V 2.2	
C5019	ECUV1C474ZFN	C CHIP +80%-20% 16V 0.47	
C5020	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5021	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5022	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C5023	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C5024	ECEV1VS2R2S	ELECTROLYTIC CHIP 35V 2.2	
C5025	ECUV1H122KBN	C CHIP 50V 1200P	
C5027	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5028	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C5029	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5030	ECEV1CA470S	ELECTROLYTIC CHIP 16V 47	
C5031	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5032	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C5033	ECEV1HS010S	ELECTROLYTIC CHIP 50V 1	
C5034	ECUV1H103KBN	C CHIP 50V 0.01	
C5035	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C5036	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C5037	ECUV1E473KBN	C CHIP 25V 0.047	
C5038	ECUV1H472KBN	C CHIP 50V 4700P	
C5039	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C5040	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5041	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5042	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C5043	ECUV1H102KBN	C CHIP 50V 1000P	
C5044	ECUV1H220JCN	C CHIP +-5% 50V 22P	
C5047	ECUV1H391JCN	C CHIP +-5% 50V 390P	
C5048	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5049	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C5050	ECUV1H391JCN	C CHIP +-5% 50V 390P	
C5051	ECUV1H020CCN	C CHIP +-0.25P 50V 2P	
C5052	ECUV1H300JCN	C CHIP +-5% 50V 30P	
C5053	ECUV1H101JCN	C CHIP +-5% 50V 100P	
C5054	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C5056	ECUV1H390JCN	C CHIP +-5% 50V 39P	
C5058	ECUV1H390JCN	C CHIP +-5% 50V 39P	
C5059	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5060	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C5061	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C5064	ECUV1H390JCN	C CHIP +-5% 50V 39P	
C5065	ECUV1H101JCN	C CHIP +-5% 50V 100P	
C5066	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C5067	ECUV1H102KBN	C CHIP 50V 1000P	
C5068	ECUV1H103KBN	C CHIP 50V 0.01	
C5069	ECUV1E473KBN	C CHIP 25V 0.047	
C5070	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5071	ECUV1E473KBN	C CHIP 25V 0.047	
C5072	ECUV1H102KBN	C CHIP 50V 1000P	
C5073	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5074	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5075	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5076	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5077	ECEV1CA470S	ELECTROLYTIC CHIP 16V 47	
C5078	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C5079	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5080	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C5081	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C5082	ECUV1H101JCN	C CHIP +-5% 50V 100P	
C5083	ECUV1H101JCN	C CHIP +-5% 50V 100P	
C5084	ECUV1H472KBN	C CHIP 50V 4700P	
C5085	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C5086	ECUV1H682KBN	C CHIP 50V 6800P	
C5087	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C5088	ECST1CY105	TANTALUM CHIP 16V 1	
C5089	ECUV1C224KBN	C CHIP 16V 0.22	
C5090	ECEV1ES4R7S	ELECTROLYTIC CHIP 25V 4.7	
C5091	ECUV1H103KBN	C CHIP 50V 0.01	
C5092	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5093	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C5094	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5095	ECUV1H153KBN	C CHIP 50V 0.015	
C5096	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C5098	ECUV1C474ZFN	C CHIP +80%-20% 16V 0.47	
C5099	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	

(E29, E30)

Ref. No.	Part No.	Part Name	Remarks
C5100	ECEV1CA470S	ELECTROLYTIC CHIP 16V 47	
C5101	ECST1CY105	TANTALUM CHIP 16V 1	
C5103	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5104	ECEV1CA470S	ELECTROLYTIC CHIP 16V 47	
C5106	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5107	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5108	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C5110	ECUV1E104KBN	C CHIP 25V 0.1	
C5111	ECUV1C474ZFN	C CHIP +80%-20% 16V 0.47	
C5112	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5113	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C5114	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5115	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C5116	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C5117	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C5118	ECEV1EA100S	ELECTROLYTIC CHIP 25V 10	
		FILTERS	
FL5001	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL5002	LSLFAA1H102	L/C COMPLX CMP 50V 1000P	
FL5003	LSLFAA1H102	L/C COMPLX CMP 50V 1000P	
FL5004	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL5005	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL5006	LSLF0004T	L/C COMPLX CMP	
FL5007	VLFS0584T	L/C COMPLX CMP	
FL5008	LSLF0004T	L/C COMPLX CMP	
FL5009	LSLFAA1H223	L/C COMPLX CMP 50V 0.022	
FL5010	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL5011	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL5012	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
		COILS	
L5001	VLPS0090	CHIP	
L5002	VLPS0090	CHIP	
L5003	FBM2125HS420	CHIP 42	
L5004	VLQ0163K100	CHIP 10	
L5005	VLQ0163J390	CHIP +-5% 39	
L5006	VLQ0163K101	CHIP 100	
L5007	VLQ0163K101	CHIP 100	
L5008	VLQ0163K101	CHIP 100	
L5009	VLPS0090	CHIP	
L5010	VLQ0163K101	CHIP 100	
L5011	VLQ0163K221	CHIP 220	
L5012	VLQ0163K221	CHIP 220	
L5013	VLQ0163K101	CHIP 100	
L5014	VLQ0163K220	CHIP 22	
L5015	VLQ0163K101	CHIP 100	
		CRYSTAL OSCILLATOR	
X5001	VSXS0785		
X5002	VSXS0781		
X5003	VSXS0782		
X5004	VSXS0783		
X5005	LSSX0004		
		PIN HEADERS	
P5001	VJPS0273	CONNECTOR	
P5002	LSJSAA31A	CONNECTOR	
		JACKS	
JK5001	LSJJ0126	RCA/S-VIDEO JACK SOCKET	
		MISCELLANEOUS	
E29	LSSC0175	FCC PLATE A. TINPLATE	
E30	LSMZ0159	VIDEO BARRIER	

Ref. No.	Part No.	Part Name	Remarks
		LINE FILTER C.B.A.	■
		RESISTORS	
R1151	ERC12ZGK275C	SOLID +-10% 1/2W 2.7M	⚠
R1152	ERC12ZGK275C	SOLID +-10% 1/2W 2.7M	⚠
R1153	ERC12ZGK275C	SOLID +-10% 1/2W 2.7M	⚠
		CAPACITORS	
C1151	LSCFC2A474M	POLYESTER +-20% 250V 0.47	⚠
C1152	LSCFC2A474M	POLYESTER +-20% 250V 0.47	⚠
C1155	VCKST5G102MX	CERAMIC +-20% 250V 1000P	⚠
C1156	VCKST5G102MX	CERAMIC +-20% 250V 1000P	⚠
		COILS	
L1151	ELF20N030A	LINE FILTER	⚠
		PIN HEADERS	
P1151	VJPS0577	CONNECTOR	
P1152	LSJA0160	P1152-SW1151 CORD W/PLUG	
		FAN DRIVE C.B.A.	■
		INTEGRATED CIRCUITS	
IC1802	AN7712	IC, LINEAR +12V REGULATOR	
IC1803	SI-3050CA	IC, LINEAR REGULATOR	
IC1804	SI-3050CA	IC, LINEAR REGULATOR	
		TRANSISTORS	
Q1801	2SB709A(R)	CHIP	
Q1802	2SB709A(R)	CHIP	
Q1803	2SD601A	CHIP	
Q1804	2SD601A	CHIP	
		DIODES	
D1809	MA111	CHIP	
D1810	MA111	CHIP	
D1811	MA8062-M	ZENER CHIP 6.2V	
D1812	MA111	CHIP	
D1813	MA152WK	CHIP	
		RESISTORS	
R1801	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R1802	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R1803	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R1808	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R1809	ERJ6GEYG471V	MGF CHIP +-2% 1/10W 470	
R1811	ERJ6GEYG471V	MGF CHIP +-2% 1/10W 470	
R1812	ERJ6GEYG100V	MGF CHIP +-2% 1/10W 10	
R1814	ERJ6GEYG100V	MGF CHIP +-2% 1/10W 10	
R1817	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1820	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1821	ERJ14YG681U	MGF CHIP +-2% 680	
R1822	ERJ14YG681U	MGF CHIP +-2% 680	
R1823	ERJ6GEYG272V	MGF CHIP +-2% 1/10W 2.7K	
R1824	ERJ6GEYG272V	MGF CHIP +-2% 1/10W 2.7K	
R1825	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R1826	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R1827	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R1828	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R1829	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R1830	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1831	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
		CAPACITORS	
C1810	ECEA1EGE470	ELECTROLYTIC 25V 47	
C1813	ECEA1EGE470	ELECTROLYTIC 25V 47	
C1814	ECEA1EGE101	ELECTROLYTIC 25V 100	

(E52, E56, E59, E61, E62, E63, E64, E65, E66)

Ref. No.	Part No.	Part Name	Remarks
C1816	ECEA1EGE101	ELECTROLYTIC 25V 100	
C1818	ECUV1C224KBN	C CHIP 16V 0.22	
C1819	ECUV1C224KBN	C CHIP 16V 0.22	
C1820	ECEA1EGE101	ELECTROLYTIC 25V 100	
C1833	ECEA1HGE100	ELECTROLYTIC 50V 10	
C1834	ECEA1EGE470	ELECTROLYTIC 25V 47	
		COILS	
L1802	LSLQA10R100K	10	
		PIN HEADERS	
P1805	VJPS0274	CONNECTOR	
P1806	LSJA0170	P1806-P1906 CORD W/PLUG	
P1807	VJPS0328	CONNECTOR	
P1808	VJPS0273	CONNECTOR	
P1809	VJPS0326	CONNECTOR	
		MISCELLANEOUS	
E56	XYC3+JF8	SCREW W/WASHER, STEEL	
E59	LSSO0167	FAN HEAT SINK	
		INLET C.B.A.	■
		CAPACITORS	
C1101	VCKST3G103MY	CERAMIC +-20% 250V 0.01	⚠
C1154	LSCFC2A104M	POLYESTER +-20% 250V 0.1	⚠
		COILS	
L1152	LSLQ0054		⚠
		PIN HEADERS	
P1101	LSJS0081	INLET	⚠
P1102	LSJA0159	P1102-P1151 CORD W/PLUG	
		SWITCHES	
SW1101	LSSW0011	SWITCH	⚠
		FUSE & PROTECTOR	
F1101	LSSF0013B50T	FUSE 250V 5A	⚠
F1102	LSSF0013B50T	FUSE 250V 5A	⚠
		SURGE ABSORBER	
ZN1101	ERZV10D471	SURGE ABSORBER 470	⚠
		MISCELLANEOUS	
E52	VZFS0006	CLAMPER	
E61	LSJA0166	GND CORD W/OUT PLUG	
E62	LSMA0266	INLET CASE, STEEL	
E63	LSTSSB5R015	HEAT SHRINKABLE TUBING	
E64	VJSS0164	FUSE HOLDER	
E65	XYN4+C6FN	SCREW W/WASHER, STEEL	
E66	LSMZ0171	INLET BARRIER	
		LCD DRIVE C.B.A.	■
		INTEGRATED CIRCUITS	
IC3501	D74HC4066AG	IC, CMOS STANDARD LOGIC	E.S.D.
		SWITCHING	
IC3502	D74HC4066AG	IC, CMOS STANDARD LOGIC	E.S.D.
		SWITCHING	
IC3503	CXA2504N-T6	IC, LINEAR SAMPLING & HOLD	
IC3504	CXA2504N-T6	IC, LINEAR SAMPLING & HOLD	
IC3505	CXA2504N-T6	IC, LINEAR SAMPLING & HOLD	

Ref. No.	Part No.	Part Name	Remarks
		TRANSISTORS	
Q3501	2SB709A(R)	CHIP	
Q3502	2SC521600L	CHIP	
Q3503	2SD601A(R)	CHIP	
Q3504	XN4501	COMPLX CMP SI NPN CHIP	
Q3505	2SB709A(R)	CHIP	
Q3506	2SB709A(R)	CHIP	
Q3507	2SC521600L	CHIP	
Q3508	2SD601A(R)	CHIP	
Q3509	XN4501	COMPLX CMP SI NPN CHIP	
Q3510	2SB709A(R)	CHIP	
Q3511	2SB709A(R)	CHIP	
Q3512	2SC521600L	CHIP	
Q3513	2SD601A(R)	CHIP	
Q3514	XN4501	COMPLX CMP SI NPN CHIP	
Q3515	2SB709A(R)	CHIP	
Q3516	2SD601A(R)	CHIP	
Q3521	2SC521600L	CHIP	
Q3522	2SB709A(R)	CHIP	
Q3523	2SD601A(R)	CHIP	
Q3524	2SC521600L	CHIP	
Q3525	2SB709A(R)	CHIP	
Q3526	2SD601A(R)	CHIP	
Q3527	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3528	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3529	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3530	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3531	2SC521600L	CHIP	
Q3532	2SB709A(R)	CHIP	
Q3533	2SD601A(R)	CHIP	
Q3534	2SC521600L	CHIP	
Q3535	2SB709A(R)	CHIP	
Q3536	2SD601A(R)	CHIP	
Q3537	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3538	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3539	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3540	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3541	2SC521600L	CHIP	
Q3542	2SB709A(R)	CHIP	
Q3543	2SD601A(R)	CHIP	
Q3544	2SC521600L	CHIP	
Q3545	2SB709A(R)	CHIP	
Q3546	2SD601A(R)	CHIP	
Q3547	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3548	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3549	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3550	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3551	2SD601A(R)	CHIP	
Q3552	2SD601A(R)	CHIP	
Q3553	2SD601A(R)	CHIP	
Q3561	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3562	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3563	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3564	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3565	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3566	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3567	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3568	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3569	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3570	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3571	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3572	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3573	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3574	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3575	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3576	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3577	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3578	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3579	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3580	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3581	XN4601	COMPLX CMP SI NPN/PNP CHIP	
Q3582	XN4501	COMPLX CMP SI NPN CHIP	
Q3583	2SD601A(R)	CHIP	

Ref. No.	Part No.	Part Name	Remarks
		DIODES	
D3501	MA111	CHIP	
D3502	MA111	CHIP	
D3503	MA111	CHIP	
D3504	MA111	CHIP	
D3505	MA111	CHIP	
D3506	MA111	CHIP	
D3511	MA152WK	CHIP	
D3513	MA152WK	CHIP	
D3514	MA152WA	CHIP	
D3515	MA152WK	CHIP	
D3516	MA152WA	CHIP	
D3517	MA152WK	CHIP	
D3519	MA152WK	CHIP	
D3520	MA152WA	CHIP	
D3521	MA152WK	CHIP	
D3522	MA152WA	CHIP	
D3523	MA152WK	CHIP	
D3525	MA152WK	CHIP	
D3526	MA152WA	CHIP	
D3527	MA152WK	CHIP	
D3528	MA152WA	CHIP	
D3529	MA152WK	CHIP	
D3530	MA152WA	CHIP	
D3531	MA111	CHIP	
		RESISTORS	
R3501	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3502	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3503	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3504	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3505	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3506	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3507	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3508	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R3509	EVNCYAA03B22	VARIABLE 200	
R3510	ERJ14YJ391H	MGF CHIP 390	
R3511	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R3512	ERJ6GEYJ393V	MGF CHIP 1/10W 39K	
R3513	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R3514	ERJ6GEYJ182V	MGF CHIP 1/10W 1.8K	
R3515	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R3516	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R3517	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R3518	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R3519	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R3520	EVNCYAA03B22	VARIABLE 200	
R3521	ERJ14YJ391H	MGF CHIP 390	
R3522	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R3523	ERJ6GEYJ393V	MGF CHIP 1/10W 39K	
R3524	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R3525	ERJ6GEYJ182V	MGF CHIP 1/10W 1.8K	
R3526	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R3527	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R3528	ERJ6GEYJ272V	MGF CHIP 1/10W 2.7K	
R3529	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R3530	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R3531	EVNCYAA03B22	VARIABLE 200	
R3532	ERJ14YJ391H	MGF CHIP 390	
R3533	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R3534	ERJ6GEYJ393V	MGF CHIP 1/10W 39K	
R3535	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R3536	ERJ6GEYJ182V	MGF CHIP 1/10W 1.8K	
R3537	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R3538	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R3539	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R3540	ERJ6GEYJ332V	MGF CHIP 1/10W 3.3K	
R3541	ERJ6GEYJ333V	MGF CHIP 1/10W 33K	
R3542	EVNCYAA03B14	VARIABLE 10K	
R3543	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R3544	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R3545	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R3546	EVNCYAA03B14	VARIABLE 10K	
R3547	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R3548	EVNCYAA03B14	VARIABLE 10K	
R3549	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	

Ref. No.	Part No.	Part Name	Remarks
R3561	ERJ6GEYG561V	MGF CHIP +-2% 1/10W 560	
R3562	ERJ6GEYG561V	MGF CHIP +-2% 1/10W 560	
R3563	ERJ6GEYG561V	MGF CHIP +-2% 1/10W 560	
R3564	ERJ6GEYG561V	MGF CHIP +-2% 1/10W 560	
R3565	ERJ6GEYJ272V	MGF CHIP 1/10W 2.7K	
R3566	ERJ6GEYJ821V	MGF CHIP 1/10W 820	
R3567	ERJ6GEYJ272V	MGF CHIP 1/10W 2.7K	
R3568	ERJ6GEYJ821V	MGF CHIP 1/10W 820	
R3569	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R3570	ERJ6GEYJ682V	MGF CHIP 1/10W 6.8K	
R3571	ERJ6GEYJ124V	MGF CHIP 1/10W 120K	
R3572	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R3573	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R3574	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3575	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3576	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R3577	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R3578	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3579	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3580	ERJ6GEYG561V	MGF CHIP +-2% 1/10W 560	
R3581	ERJ6GEYG561V	MGF CHIP +-2% 1/10W 560	
R3582	ERJ6GEYG561V	MGF CHIP +-2% 1/10W 560	
R3583	ERJ6GEYG561V	MGF CHIP +-2% 1/10W 560	
R3584	ERJ6GEYJ272V	MGF CHIP 1/10W 2.7K	
R3585	ERJ6GEYJ821V	MGF CHIP 1/10W 820	
R3586	ERJ6GEYJ272V	MGF CHIP 1/10W 2.7K	
R3587	ERJ6GEYJ821V	MGF CHIP 1/10W 820	
R3588	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R3589	ERJ6GEYJ682V	MGF CHIP 1/10W 6.8K	
R3590	ERJ6GEYJ124V	MGF CHIP 1/10W 120K	
R3591	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R3592	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R3593	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3594	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3595	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R3596	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R3597	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3598	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3601	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R3602	EVNCYAA03B14	VARIABLE 10K	
R3603	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R3606	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R3607	EVNCYAA03B14	VARIABLE 10K	
R3608	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R3609	ERJ6GEYG561V	MGF CHIP +-2% 1/10W 560	
R3610	ERJ6GEYG561V	MGF CHIP +-2% 1/10W 560	
R3611	ERJ6GEYG561V	MGF CHIP +-2% 1/10W 560	
R3612	ERJ6GEYG561V	MGF CHIP +-2% 1/10W 560	
R3613	ERJ6GEYJ272V	MGF CHIP 1/10W 2.7K	
R3614	ERJ6GEYJ821V	MGF CHIP 1/10W 820	
R3615	ERJ6GEYJ272V	MGF CHIP 1/10W 2.7K	
R3616	ERJ6GEYJ821V	MGF CHIP 1/10W 820	
R3617	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R3618	ERJ6GEYJ682V	MGF CHIP 1/10W 6.8K	
R3619	ERJ6GEYJ124V	MGF CHIP 1/10W 120K	
R3620	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R3621	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R3622	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3623	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3624	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R3625	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R3626	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3627	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3628	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R3629	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R3630	ERJ6GEYJ152V	MGF CHIP 1/10W 1.5K	
R3631	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R3632	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R3633	ERJ6GEYJ152V	MGF CHIP 1/10W 1.5K	
R3634	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R3635	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R3636	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R3637	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R3638	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R3651	ERJ6GEYJ333V	MGF CHIP 1/10W 33K	
R3652	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R3653	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3654	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3655	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●

Ref. No.	Part No.	Part Name	Remarks
R3656	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3657	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3658	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3659	ERJ6GEYJ333V	MGF CHIP 1/10W 33K	
R3660	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R3661	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3662	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3663	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3664	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3665	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3666	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3667	ERJ6GEYJ333V	MGF CHIP 1/10W 33K	
R3668	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R3669	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3670	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3671	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3672	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3673	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3674	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R3681	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3682	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3683	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3684	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3685	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3686	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3687	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3688	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3689	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3690	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3691	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3692	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3693	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3694	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3695	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3696	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3697	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3698	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3699	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R3700	EVNCYAA03B13	VARIABLE 1K	
R3701	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3702	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3703	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3704	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3705	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3706	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3707	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3708	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3709	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3710	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3711	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3712	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3713	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3714	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3715	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3716	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3717	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3718	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3719	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R3720	EVNCYAA03B13	VARIABLE 1K	
R3721	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3722	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3723	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3724	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3725	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3726	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3727	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3728	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3729	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3730	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3731	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3732	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3733	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3734	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3735	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3736	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3737	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3738	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3739	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	

Ref. No.	Part No.	Part Name	Remarks
R3740	EVNCYAA03B13	VARIABLE 1K	
R3741	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3742	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3743	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3744	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3745	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3746	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3747	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R3748	ERJ6GEYJ562V	MGF CHIP 1/10W 5.6K	
R3749	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3750	ERJ6GEYJ562V	MGF CHIP 1/10W 5.6K	
R3751	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R3752	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R3753	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R3754	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R3755	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R3756	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R3757	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R3758	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R3759	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R3760	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R3761	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R3762	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R3763	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R3764	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R3765	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R3766	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R3767	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
		CAPACITORS	
C3501	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C3502	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3503	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C3504	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3505	ECUV1H560JCN	C CHIP +-5% 50V 56P	
C3506	ECEV1HA2R2S	ELECTROLYTIC CHIP 50V 2.2	
C3507	ECEV1HS010S	ELECTROLYTIC CHIP 50V 1	
C3508	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3509	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C3510	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3511	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C3512	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3513	ECUV1H560JCN	C CHIP +-5% 50V 56P	
C3514	ECEV1HA2R2S	ELECTROLYTIC CHIP 50V 2.2	
C3515	ECEV1HS010S	ELECTROLYTIC CHIP 50V 1	
C3516	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3517	EEVHA1C100R	ELECTROLYTIC CHIP 16V 10	
C3518	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3519	EEVHA1C100R	ELECTROLYTIC CHIP 16V 10	
C3520	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3521	ECUV1H560JCN	C CHIP +-5% 50V 56P	
C3522	EEVHA1H2R2R	ELECTROLYTIC CHIP 50V 2.2	
C3523	ECEV1HS010S	ELECTROLYTIC CHIP 50V 1	
C3524	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3525	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3531	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3532	ECEV1EA330SP	ELECTROLYTIC CHIP 25V 33	
C3533	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3534	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3535	ECEV1EA330SP	ELECTROLYTIC CHIP 25V 33	
C3536	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3537	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3538	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3539	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3540	ECEV1EA330SP	ELECTROLYTIC CHIP 25V 33	
C3541	ECUV1H471JCN	C CHIP +-5% 50V 470P	
C3542	ECUV1H471JCN	C CHIP +-5% 50V 470P	
C3543	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3544	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3551	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3552	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3553	ECEV1EA330SP	ELECTROLYTIC CHIP 25V 33	
C3554	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C3555	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C3556	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3557	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3558	ECEV0JA220S	ELECTROLYTIC CHIP 6.3V 22	
C3559	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	

Ref. No.	Part No.	Part Name	Remarks
C3560	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3561	ECEV1EA330SP	ELECTROLYTIC CHIP 25V 33	
C3562	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C3563	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C3564	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3565	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3566	ECEV0JA220S	ELECTROLYTIC CHIP 6.3V 22	
C3567	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3568	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3569	ECEV1EA330SP	ELECTROLYTIC CHIP 25V 33	
C3570	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C3571	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C3572	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3573	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3574	ECEV0JA220S	ELECTROLYTIC CHIP 6.3V 22	
C3581	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3582	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3583	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3584	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3585	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3586	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3587	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3588	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3589	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3590	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3591	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3592	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3593	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C3595	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3596	ECEV1ES4R7S	ELECTROLYTIC CHIP 25V 4.7	
C3597	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3598	ECEV1EA100S	ELECTROLYTIC CHIP 25V 10	
C3599	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3600	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3601	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3602	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3603	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3604	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3605	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3606	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3607	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3608	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3609	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3610	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3611	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C3613	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3614	ECEV1ES4R7S	ELECTROLYTIC CHIP 25V 4.7	
C3615	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3616	ECEV1EA100S	ELECTROLYTIC CHIP 25V 10	
C3617	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3618	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3619	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3620	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3621	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3622	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3623	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3624	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3625	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3626	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3627	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3628	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3629	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C3631	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3632	ECEV1ES4R7S	ELECTROLYTIC CHIP 25V 4.7	
C3633	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3634	ECEV1EA100S	ELECTROLYTIC CHIP 25V 10	
C3635	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3636	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3637	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3638	ECUV1H151JCN	C CHIP +-5% 50V 150P	
C3639	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3640	ECUV1H221JCN	C CHIP +-5% 50V 220P	
C3641	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3642	ECEV1ES4R7S	ELECTROLYTIC CHIP 25V 4.7	
C3643	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C3644	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C3645	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C3646	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	

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Ref. No.	Part No.	Part Name	Remarks
		COILS	
L3501	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
L3502	ELESN330KA	33	
L3504	VLQ0163K220	CHIP 22	
L3505	VLQ0163K220	CHIP 22	
L3506	VLQ0163K220	CHIP 22	
L3507	VLQ0163K220	CHIP 22	
L3508	VLQ0163K220	CHIP 22	
L3509	VLQ0163K220	CHIP 22	
L3510	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
L3511	VLQ0163K220	CHIP 22	
L3512	VLQ0163K220	CHIP 22	
L3513	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
L3514	VLQ0163K220	CHIP 22	
L3515	VLQ0163K220	CHIP 22	
L3516	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
L3517	VLQ0163K220	CHIP 22	
L3518	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
		PIN HEADERS	
P3501	VJSS3332	CONNECTOR	
P3502	VJSS3332	CONNECTOR	
P3503	VJSS3332	CONNECTOR	
P3504	LSJA0169	P3504-P1904 CORD W/PLUG	
P3505	LSJSAA40A	CONNECTOR	
		MISCELLANEOUS	
E81	LSMX0097	CARD SPACER	
		JACK C.B.A.	■
		INTEGRATED CIRCUITS	
IC4001	TC4W53FU	IC, LINEAR SWITCHING	
IC4002	AD8055ART	IC, LINEAR BUFFER	
IC4003	AD8055ART	IC, LINEAR BUFFER	
IC4004	AD8055ART	IC, LINEAR BUFFER	
IC4005	TC4W53FU	IC, CMOS STANDARD LOGIC	E.S.D.
		SWITCHING	
IC4006	D4723GS-GJG	IC, LOGIC RS232C INTERFACE	E.S.D.
IC4007	M52347FP	IC, LINEAR SYNC SIGNAL PROCESS	
IC4008	74F244SJ-L1	IC, LOGIC BUFFER	E.S.D.
IC4009	AN5265	IC, LINEAR AUDIO AMP	
IC4010	AT24C21	IC, 2K EEP ROM DDC MEMORY	E.S.D.
		TRANSISTORS	
Q4001	2SC521600L	CHIP	
Q4002	2SC521600L	CHIP	
Q4003	2SC521600L	CHIP	
Q4006	2SB1218ARS	CHIP	
Q4007	2SB1218ARS	CHIP	
Q4008	2SD1819A(R,S)	CHIP	
Q4009	2SD1819A(R,S)	CHIP	
Q4010	2SB1218ARS	CHIP	
Q4011	2SD1819A(R,S)	CHIP	
Q4012	2SD1819A(R,S)	CHIP	
Q4013	2SD1819A(R,S)	CHIP	
Q4014	2SD1819A(R,S)	CHIP	
Q4015	UN5215(R)	CHIP	
Q4016	UN5215(R)	CHIP	
Q4017	2SD1819A(R,S)	CHIP	
Q4018	2SD1819A(R,S)	CHIP	
Q4019	2SB1218ARS	CHIP	
Q4020	2SB1218ARS	CHIP	
Q4021	2SD1819A(R,S)	CHIP	
Q4022	2SD1819A(R,S)	CHIP	
Q4023	2SD1819A(R,S)	CHIP	
Q4024	2SD1819A(R,S)	CHIP	
Q4025	2SD1819A(R,S)	CHIP	

Ref. No.	Part No.	Part Name	Remarks
		DIODES	
D4001	RD6.2S	ZENER CHIP 6.2V	
D4002	RD6.2S	ZENER CHIP 6.2V	
D4003	RD6.2S	ZENER CHIP 6.2V	
D4004	RD6.2S	ZENER CHIP 6.2V	
D4005	RD6.2S	ZENER CHIP 6.2V	
D4006	RD6.2S	ZENER CHIP 6.2V	
D4007	RD6.2S	ZENER CHIP 6.2V	
D4008	RD6.2S	ZENER CHIP 6.2V	
D4009	RD6.2S	ZENER CHIP 6.2V	
D4010	RD6.2S	ZENER CHIP 6.2V	
D4011	RD6.2S	ZENER CHIP 6.2V	
D4012	RD6.2S	ZENER CHIP 6.2V	
D4013	RD6.2S	ZENER CHIP 6.2V	
D4014	MA111	CHIP	
D4015	MA111	CHIP	
D4016	RD13S	ZENER CHIP 13V	
D4018	RD13S	ZENER CHIP 13V	
D4019	RD13S	ZENER CHIP 13V	
D4021	RD13S	ZENER CHIP 13V	
D4022	RD13S	ZENER CHIP 13V	
D4024	RD13S	ZENER CHIP 13V	
D4025	RD13S	ZENER CHIP 13V	
D4027	RD13S	ZENER CHIP 13V	
D4029	MA111	CHIP	
D4031	MA111	CHIP	
D4032	MA152WK	CHIP	
D4033	MA111	CHIP	
D4034	RD6.2S	ZENER CHIP 6.2V	
		RESISTORS	
R4001	ERJ6ENF75R0V	MGF CHIP ←1% 1/10W 75	
R4002	ERJ6ENF75R0V	MGF CHIP ←1% 1/10W 75	
R4003	ERJ6ENF75R0V	MGF CHIP ←1% 1/10W 75	
R4004	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4006	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4007	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4009	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4010	ERJ6GEYG750V	MGF CHIP ←2% 1/10W 75	
R4011	ERJ6GEYG750V	MGF CHIP ←2% 1/10W 75	
R4012	ERJ6GEYG750V	MGF CHIP ←2% 1/10W 75	
R4013	ERJ6GEYJ334V	MGF CHIP 1/10W 330K	
R4014	ERJ6GEYJ334V	MGF CHIP 1/10W 330K	
R4015	ERJ6GEYJ394V	MGF CHIP 1/10W 390K	
R4016	ERJ6GEYJ334V	MGF CHIP 1/10W 330K	
R4017	ERJ6GEYJ334V	MGF CHIP 1/10W 330K	
R4018	ERJ6GEYJ394V	MGF CHIP 1/10W 390K	
R4019	ERJ6GEYJ334V	MGF CHIP 1/10W 330K	
R4020	ERJ6GEYJ334V	MGF CHIP 1/10W 330K	
R4021	ERJ6GEYJ394V	MGF CHIP 1/10W 390K	
R4022	ERJ6GEYJ334V	MGF CHIP 1/10W 330K	
R4023	ERJ6GEYJ334V	MGF CHIP 1/10W 330K	
R4024	ERJ6GEYJ394V	MGF CHIP 1/10W 390K	
R4025	ERJ6GEYG821V	MGF CHIP ←2% 1/10W 820	
R4026	ERJ6GEYG821V	MGF CHIP ←2% 1/10W 820	
R4027	ERJ6GEYG821V	MGF CHIP ←2% 1/10W 820	
R4028	ERJ6ENF4120V	MGF CHIP ←1% 1/10W 412	
R4029	ERJ6GEYG821V	MGF CHIP ←2% 1/10W 820	
R4030	ERJ6ENF4120V	MGF CHIP ←1% 1/10W 412	
R4031	ERJ6GEYG821V	MGF CHIP ←2% 1/10W 820	
R4032	ERJ6ENF4120V	MGF CHIP ←1% 1/10W 412	
R4033	ERJ6GEYG821V	MGF CHIP ←2% 1/10W 820	
R4034	ERJ6GEYG183V	MGF CHIP ←2% 1/10W 18K	
R4035	ERJ6GEYG183V	MGF CHIP ←2% 1/10W 18K	
R4036	ERJ6GEYG183V	MGF CHIP ←2% 1/10W 18K	
R4037	ERJ6GEYG183V	MGF CHIP ←2% 1/10W 18K	
R4038	ERJ6GEYG183V	MGF CHIP ←2% 1/10W 18K	
R4039	ERJ6GEYG183V	MGF CHIP ←2% 1/10W 18K	
R4040	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4041	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4042	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4045	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4046	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4047	ERJ6GEYJ821V	MGF CHIP 1/10W 820	
R4048	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R4049	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	

Ref. No.	Part No.	Part Name	Remarks
R4050	ERJ6GEYJ821V	MGF CHIP 1/10W 820	
R4051	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R4052	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R4053	ERJ6GEYJ183V	MGF CHIP 1/10W 18K	
R4054	ERJ6GEYJ390V	MGF CHIP 1/10W 39	
R4055	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R4057	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R4058	ERJ6GEYJ563V	MGF CHIP 1/10W 56K	
R4059	ERJ6GEYJ392V	MGF CHIP 1/10W 3.9K	
R4060	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R4061	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R4062	ERJ6GEYJ392V	MGF CHIP 1/10W 3.9K	
R4063	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R4064	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R4065	ERJ6GEYJ471V	MGF CHIP 1/10W 470	
R4066	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4067	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4068	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4069	ERJ6GEYJ272V	MGF CHIP 1/10W 2.7K	
R4071	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R4072	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R4074	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4075	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4076	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4077	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4078	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4079	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4080	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R4082	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R4083	ERJ6GEYJ224V	MGF CHIP 1/10W 220K	
R4084	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R4085	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R4086	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R4087	ERJ6GEYJ184V	MGF CHIP 1/10W 180K	
R4088	ERJ14YJ221H	MGF CHIP 220	
R4089	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R4090	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R4091	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R4092	ERJ6GEYJ823V	MGF CHIP 1/10W 82K	
R4093	ERJ6GEYJ562V	MGF CHIP 1/10W 5.6K	
R4094	ERJ6GEYJ391V	MGF CHIP 1/10W 390	
R4095	ERJ6GEYJ392V	MGF CHIP 1/10W 3.9K	
R4096	ERJ6GEYJ682V	MGF CHIP 1/10W 6.8K	
R4097	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R4098	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R4099	ERX1SG9R1E	METAL FILM +-2% 1W 9.1	
R4100	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R4101	ERJ14YJ100H	MGF CHIP 10	
R4102	ERJ6GEYJ124V	MGF CHIP 1/10W 120K	
R4103	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R4104	ERJ6GEYJ124V	MGF CHIP 1/10W 120K	
R4105	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R4108	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R4109	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R4110	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R4111	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R4112	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R4113	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R4114	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R4115	ERJ6GEYJ560V	MGF CHIP 1/10W 56	
R4116	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R4117	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R4118	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
R4119	ERJ6GEYJ472V	MGF CHIP 1/10W 4.7K	
		CAPACITORS	
C4001	ECST1AY106	TANTALUM CHIP 10V 10	
C4002	ECST1AY106	TANTALUM CHIP 10V 10	
C4003	ECST1AY106	TANTALUM CHIP 10V 10	
C4004	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C4005	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C4006	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C4007	ECA0JM471B	ELECTROLYTIC 6.3V 470	
C4008	ECA0JM471B	ELECTROLYTIC 6.3V 470	
C4009	ECA0JM471B	ELECTROLYTIC 6.3V 470	
C4010	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C4011	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	

Ref. No.	Part No.	Part Name	Remarks
C4012	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C4013	ECEV1HA2R2S	ELECTROLYTIC CHIP 50V 2.2	
C4014	ECEV1HA2R2S	ELECTROLYTIC CHIP 50V 2.2	
C4016	ECEV0JA101S	ELECTROLYTIC CHIP 6.3V 100	
C4017	ECEV1HA2R2S	ELECTROLYTIC CHIP 50V 2.2	
C4018	ECEV1HA2R2S	ELECTROLYTIC CHIP 50V 2.2	
C4019	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C4021	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C4022	ECEV1CA470S	ELECTROLYTIC CHIP 16V 47	
C4023	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C4025	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C4026	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C4027	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C4028	ECUV1H121JCN	C CHIP +-5% 50V 120P	
C4029	ECEV0JA470S	ELECTROLYTIC CHIP 6.3V 47	
C4030	ECEV1HS010S	ELECTROLYTIC CHIP 50V 1	
C4031	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C4033	ECUV1E104KBN	C CHIP 25V 0.1	
C4034	ECST1AY106	TANTALUM CHIP 10V 10	
C4035	ECUV1E683KBN	C CHIP 25V 0.068	
C4036	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C4037	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C4038	ECUV1H561JCN	C CHIP +-5% 50V 560P	
C4039	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C4041	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C4042	ECUV1H101JCN	C CHIP +-5% 50V 100P	
C4043	ECUV1H101JCN	C CHIP +-5% 50V 100P	
C4045	ECEV1CA470S	ELECTROLYTIC CHIP 16V 47	
C4046	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C4047	ECUV1H122KBN	C CHIP 50V 1200P	
C4048	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C4049	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C4050	ECEV1EA4R7S	ELECTROLYTIC CHIP 25V 4.7	
C4051	ECUV1E333KBN	C CHIP 25V 0.033	
C4052	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C4053	ECA1CM101B	ELECTROLYTIC 16V 100	
C4054	ECA1CM102B	ELECTROLYTIC 16V 1000	
C4055	ECEA1EU471	ELECTROLYTIC 25V 470	
C4056	ECUV1E473KBN	C CHIP 25V 0.047	
C4057	ECEV1HA2R2S	ELECTROLYTIC CHIP 50V 2.2	
C4058	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C4059	ECEV1CS100S	ELECTROLYTIC CHIP 16V 10	
C4060	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C4061	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C4062	ECA1CM102B	ELECTROLYTIC 16V 1000	
		FILTERS	
FL4001	NFM51R20P207	L/C COMPLX CMP 200	
FL4002	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL4003	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL4004	LSLFAA1H102	L/C COMPLX CMP 50V 1000P	
FL4005	LSLFAA1H102	L/C COMPLX CMP 50V 1000P	
FL4006	NFM51R10P107	L/C COMPLX CMP 100	
FL4007	NFM51R10P107	L/C COMPLX CMP 100	
FL4008	NFM51R10P107	L/C COMPLX CMP 100	
FL4009	NFM51R10P107	L/C COMPLX CMP 100	
FL4010	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
FL4011	LSLFAA1H102	L/C COMPLX CMP 50V 1000P	
FL4012	LSLFAA1H102	L/C COMPLX CMP 50V 1000P	
FL4013	LSLFAA1H223	L/C COMPLX CMP 50V 0.022	
FL4014	LSLF0005	L/C COMPLX CMP CHIP	
FL4015	LSLFAA1H101	L/C COMPLX CMP 50V 100P	
		COILS	
L4001	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
L4002	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
L4003	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
L4004	VLQ0163J271	CHIP +-5% 270	
L4005	VLQ0163K220	CHIP 22	
L4006	VLQ0163K220	CHIP 22	
L4007	VLPS0090	CHIP	
L4008	VLPS0090	CHIP	
L4009	VLPS0090	CHIP	
L4010	VLQ0163K220	CHIP 22	
L4011	VLQ0163K220	CHIP 22	
L4012	VLQ0163K220	CHIP 22	

(E71, E72, E73, E74, E75, E82, E86, E91)

Ref. No.	Part No.	Part Name	Remarks
		PIN HEADERS	
P4001	LSJA0171	P4001-P5001 CORD W/PLUG	
P4002	VJPS0268	CONNECTOR	
P4003	LSJSAA31A	CONNECTOR	
		JACKS	
JK4001	LSJJ0125	D-SUB MINI JACK SOCKET	
JK4002	LSJJ0018	STEREO MINI JACK SOCKET	
JK4003	LSJJ0125	D-SUB MINI JACK SOCKET	
JK4004	LSJJ0018	STEREO MINI JACK SOCKET	
JK4005	LSJJ0014	RS232C MINI JACK SOCKET	
		MISCELLANEOUS	
E71	LSKF0163	JACK COVER	
E72	LSMA0264	I/O PLATE, STEEL	
E73	XTV3+8G	TAPPING SCREW, STEEL	
E74	LSMT0029	CUSHION, POLYURETANE+NYLON	
E75	LSMZ0160	JACK BARRIER	
E82	LSSC0199	SHIELD SHEET-A	
E86	LSMT0027	CUSHION, POLYURETANE+NYLON	
E91	VMTS0059	CUSHION, RUBBER	
		CARD C.B.A.	■
		INTEGRATED CIRCUITS	
IC6601	D74HCU04GE1	IC, CMOS STANDARD LOGIC	E.S.D.
		INVERTER	
IC6602	MC74HC00AF	IC, CMOS STANDARD LOGIC NAND	E.S.D.
		GATE	
IC6603	TC74HCT541AF	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC6604	TC74HCT541AF	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC6605	TC74HCT541AF	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC6606	TC74HCT541AF	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC6607	TC74HCT245AF	IC, CMOS STANDARD LOGIC	E.S.D.
		TRANSCEIVER	
IC6608	TC74HCT245AF	IC, CMOS STANDARD LOGIC	E.S.D.
		TRANSCEIVER	
IC6609	TC74HCT541AF	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC6610	D424260G5-70	IC, 4MBIT D RAM	E.S.D.
IC6611	TC74HCT08AF	IC, CMOS STANDARD LOGIC AND	E.S.D.
		GATE	
IC6612	TC74ACT157F	IC, CMOS STANDARD LOGIC DATA	E.S.D.
		SELECTOR	
IC6613	MB91101PF	IC, 32BIT RISC MICROCONTROLLER	E.S.D.
IC6614	UPC29M33T-E1	IC, LINEAR +3.3V REGULATOR	
IC6615	MN1380-R	IC, LOGIC RESET	E.S.D.
IC6616	M29F20TA90S1	IC, 2MBIT FLASH MEMORY	E.S.D.
IC6617	TC74LCX541FT	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC6618	TC74LCX541FT	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
IC6619	TC74LCX541FT	IC, CMOS STANDARD LOGIC BUFFER	E.S.D.
		TRANSISTORS	
Q6601	2SB1218ARS	CHIP	
Q6602	2SD1819A(R, S)	CHIP	
Q6603	2SD1119(Q)	CHIP	
		DIODES	
D6601	MA8068-M	ZENER CHIP 6.8V	
D6602	MA111	CHIP	
D6603	MA110	CHIP	
		RESISTORS	
R6601	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R6602	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R6603	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R6604	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R6605	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6606	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R6608	ERJ6GEYG222V	MGF CHIP ←2% 1/10W 2.2K	

Ref. No.	Part No.	Part Name	Remarks
R6609	ERJ6GEYG222V	MGF CHIP ←2% 1/10W 2.2K	
R6610	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6611	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6612	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6614	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6615	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6616	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6617	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6618	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6619	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6620	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6621	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6622	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6623	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6624	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6625	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6626	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6643	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6644	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6645	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6646	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6647	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6648	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6649	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6650	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6651	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6652	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6653	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6654	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6655	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6656	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6657	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6658	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6659	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6660	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6661	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6662	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6663	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6664	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6665	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6666	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6667	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6668	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6669	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6670	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6671	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6672	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6673	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6674	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6675	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6676	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6677	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6678	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R6679	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6681	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6682	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6683	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6684	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6685	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6686	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6687	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6688	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6689	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6691	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6692	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6693	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6694	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6695	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6696	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6697	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6698	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6699	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6700	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6701	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6702	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R5703	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6704	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6705	ERJ6GEYJ330V	MGF CHIP 1/10W 33	

Ref. No.	Part No.	Part Name	Remarks
R6706	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6707	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6708	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6709	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6710	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6711	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6712	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6713	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6714	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6715	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6716	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6717	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6718	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6719	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6720	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6721	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6722	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6723	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6724	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6726	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6727	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6728	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6729	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6730	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6731	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6732	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6733	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6734	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6735	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6736	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6737	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6738	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6739	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6740	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6741	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6742	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6743	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6744	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6745	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6746	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6747	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6748	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6749	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6750	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6751	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6752	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6753	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6754	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6755	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6756	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6757	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6758	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6759	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6760	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6761	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6762	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6763	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6764	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6765	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6766	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6767	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6768	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6769	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6770	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6771	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6772	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6773	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6774	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6775	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6776	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6777	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6778	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6779	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6780	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6781	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6782	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6783	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6784	ERJ6GEYJ220V	MGF CHIP 1/10W 22	

Ref. No.	Part No.	Part Name	Remarks
R6785	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6786	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6787	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6788	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6789	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6790	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6791	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6792	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6793	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6794	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6795	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6796	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6797	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6798	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6799	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6800	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6801	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6802	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6803	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6805	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6806	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6807	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6808	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6809	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6810	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6811	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6812	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6813	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6814	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6815	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6816	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6817	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6818	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6819	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6820	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6821	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6822	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6823	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6824	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6825	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6826	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6827	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6828	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6829	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6830	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6831	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6832	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6833	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6834	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6835	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6836	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6837	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6838	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6839	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6840	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6841	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6842	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6843	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6844	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6845	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6846	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6847	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6848	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6849	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6850	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6851	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6852	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6853	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6854	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6855	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6856	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6857	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6858	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6859	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6860	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6861	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6862	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6863	ERJ6GEYJ220V	MGF CHIP 1/10W 22	

(E10, E24, E76, E77, E78, E79, E80, E91, E92)

Ref. No.	Part No.	Part Name	Remarks
R6864	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6865	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6866	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6867	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6868	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6869	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6870	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6871	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6872	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6873	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6874	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6875	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6876	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6877	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6878	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6879	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6880	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6881	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6882	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6883	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6884	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6885	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6886	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6887	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6888	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6889	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R6890	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R6891	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R6894	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R6897	ERJ6GEY0R00V	MGF CHIP 1/10W 0	●
R6898	ERDS2TJ221	220	
		CAPACITORS	
C6601	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6602	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6603	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6604	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6605	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C6606	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6607	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6608	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C6609	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6610	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6611	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6612	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C6613	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6614	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6615	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6616	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C6617	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6618	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6619	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C6620	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6621	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6622	EEVHA0J101P	ELECTROLYTIC CHIP 6.3V 100	
C6623	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6624	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C6625	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6626	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6627	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6628	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6629	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C6630	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6631	ECUV1C105ZFN	C CHIP +80%-20% 16V 1	
C6632	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C6633	EEVHA0J101P	ELECTROLYTIC CHIP 6.3V 100	
C6634	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6635	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6636	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6637	EEVHA0J470R	ELECTROLYTIC CHIP 6.3V 47	
C6638	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
		FILTERS	
FL6600	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6601	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6602	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	

Ref. No.	Part No.	Part Name	Remarks
FL6603	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6604	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6605	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6606	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6607	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6608	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6609	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6610	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6611	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6612	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6613	VLPS0090	CHIP	
FL6614	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6615	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6616	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6617	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6618	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6619	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6620	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6621	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6622	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6623	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6624	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6625	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
FL6626	LSLFBA1H101G	L/C COMPLX CMP 50V 100P	
		COILS	
L6601	VLQ0163K4R7	CHIP 4.7	
L6602	VLQ0163K4R7	CHIP 4.7	
L6603	VLQ0163K4R7	CHIP 4.7	
L6604	VLQ0163K4R7	CHIP 4.7	
L6605	VLQ0163K4R7	CHIP 4.7	
L6606	VLQ0163K4R7	CHIP 4.7	
L6607	VLQ0163K4R7	CHIP 4.7	
L6608	LSLJD0S40T1		
L6609	VLPS0090	CHIP	
L6610	VLPS0090	CHIP	
L6611	VLPS0090	CHIP	
L6612	VLPS0090	CHIP	
L6613	VLPS0090	CHIP	
L6614	LSLJD0S40T1		
L6615	VLQ0319K4R7	CHIP 4.7	
L6616	VLPS0090	CHIP	
L6617	VLQ0163K4R7	CHIP 4.7	
L6618	VLPS0090	CHIP	
		CRYSTAL OSCILLATOR	
X6601	VSXS0804		
		PIN HEADERS	
P6601	LSJSBC68B	CONNECTOR	
P6602	LSJSAB35A	CONNECTOR	
P6603	VJPS0283	CONNECTOR	
P6604	LSJA0180	P6604-1907 CORD W/PLUG	
		PRINTED CIRCUIT BOARD ASSEMBLY	
E10	LSEP0089A1	CARD CHILD C.B.A.	▲ E.S.D.
		MISCELLANEOUS	
E24	LSJW0009	CONNECTOR CORD W/OUT PLUG	
E76	LSGU0057	CARD EJECT KNOB	
E77	LSJS0083	EJECTOR	
E78	XYN2+F8	SCREW W/WASHER, STEEL	
E79	LSMT0030	CUSHION, POLYURETANE+NYLON	
E80	LSMZ0167	CARD BARRIER	
E91	VMTS0059	CUSHION, RUBBER	
E92	VMTS0035	CUSHION, RUBBER	

(E14, E15, E16, E17, E18, E19, E20, E21, E22, E23, E25, E26, E27, E31, E32, E33, E34
E35, E36, E37, E38, E39, E40, E86, E90)

Ref. No.	Part No.	Part Name	Remarks
		CARD CHILD C.B.A.	▲
		INTEGRATED CIRCUITS	
IC6951	D74HC123AG-T	IC, CMOS STANDARD LOGIC MULTI	E.S.D.
		VIBLATOR	
		TRANSISTORS	
Q6951	2SB709A	CHIP	
Q6952	2SD601A	CHIP	
		DIODES	
D6951	MA111	CHIP	
		RESISTORS	
R6951	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R6952	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R6953	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R6954	ERJ6ENF2202V	MGF CHIP +-1% 1/10W 22K	
R6955	ERJ6ENF4702V	MGF CHIP +-1% 1/10W 47K	
R6956	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R6957	ERJ6GEYJ123V	MGF CHIP 1/10W 12K	
R6959	ERJ6GEYJ272V	MGF CHIP 1/10W 2.7K	
R6960	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
		CAPACITORS	
C6951	ECUV1H101JCN	C CHIP +-5% 50V 100P	
C6952	ECUV1H103ZFN	C CHIP +80%-20% 50V 0.01	
C6953	ECUV1H332KBN	C CHIP 50V 3300P	
C6954	ECUV1E104ZFN	C CHIP +80%-20% 25V 0.1	
C6955	ECUV1H332KBN	C CHIP 50V 3300P	
		ELECTRICAL PARTS LOCATED ON CHASSIS	
E14	VEMS0318	POWER FAN UNIT	
E15	LSJA0178	FILTER SW UNIT	
E16	EASG7D11B2	SPEAKER	
E17	LSJA0172	P4002-SPEAKER CORD W/PLUG	
E18	FBA09A12H0	LAMP FAN	
E19	LSJA0175	LAMP FAN-P1903 CORD W/PLUG	
E20	VRTS0014	THERMISTOR	⚠
E21	VRFS0006	DUCT FAN-1	
E22	VRFS0007.	DUCT FAN-2	
E23	LSLP0056	FERRITE CORE	
E25	LSJW0006	CONNECTOR CORD W/OUT PLUG	
E26	LSJW0007	CONNECTOR CORD W/OUT PLUG	
E27	LSJW0008	CONNECTOR CORD W/OUT PLUG	
E31	KGLS-5RF	RIVET, NYLON	
E32	KGPS-5RF	SPACER	
E33	LSMA0267	BALLAST PLATE-A, STEEL	
E34	LSMA0268	BALLAST PLATE-B, STEEL	
E35	LSMZ0141	BALLAST BARRIER-A	⚠
E36	LSMZ0142	BALLAST BARRIER-B	⚠
E37	LSMZ0143	BALLAST BARRIER-C	⚠
E38	XTN3+4F	TAPPING SCREW, STEEL	
E39	XTV3+30J	TAPPING SCREW, STEEL	
E40	XYE3+FF6	SCREW W/WASHER, STEEL	
E86	LSMT0027	CUSHION, POLYURETANE+NYLON	
E90	VEES0123	TEMPERATURE FUSE UNIT	
SW1151	AGX205	INTER LOCK SWITCH	⚠

Ref. No.	Part No.	Part Name	Remarks
		SUMMARY OF "E" ITEM NUNBERS REFER TO ELECTRICAL PARTS LIST FOR MODEL INFORMATION	
E1	LSEP0327A1	MAIN C.B.A.	
E2	LSEP0321A1	VIDEO C.B.A.	
E3	LSEP01115A1	MAIN POWER C.B.A. NR	
E4	LSEP01114A1	LINE FILTER C.B.A.	
E5	LSEP01116A1	FAN DRIVE C.B.A.	
E6	LSEP0111381	INLET C.B.A.	
E7	LSEP0320A1	LCD DRIVE C.B.A.	
E8	LSEP0322A1	JACK C.B.A.	
E9	LSEP061981	CARD C.B.A.	
E10	LSEP0089A1	CARD CHILD C.B.A.	
E11	LSEP0052A1	IR SENSOR FRONT C.B.A. NR	
E12	LSEP0053A1	IR SENSOR REAR C.B.A. NR	
E13	LSEP0067A1	THERMISTOR 2 C.B.A. NR	
E14	VEMS0318	POWER FAN UNIT	
E15	LSJA0178	FILTER SW UNIT	
E16	EASG7D11B2	SPEAKER	
E17	LSJA0172	P4002-SPEAKER CORD W/PLUG	
E18	FBA09A12H0	LAMP FAN	
E19	LSJA0175	LAMP FAN-P1903 CORD W/PLUG	
E20	VRTS0014	THERMISTOR	
E21	VRFS0006	DUCT FAN-1	
E22	VRFS0007	DUCT FAN-2	
E23	LSLP0056	FERRITE CORE	
E24	LSJW0009	CONNECTOR CORD W/OUT PLUG	
E25	LSJW0006	CONNECTOR CORD W/OUT PLUG	
E26	LSJW0007	CONNECTOR CORD W/OUT PLUG	
E27	LSJW0008	CONNECTOR CORD W/OUT PLUG	
E29	LSSC0175	FCC PLATE A, TINPLATE	
E30	LSMZ0159	VIDEO BARRIER	
E31	KGLS-5RF	RIVET, NYLON	
E32	KGPS-5RF	SPACER	
E33	LSMA0267	BALLAST PLATE-A, STEEL	
E34	LSMA0268	BALLAST PLATE-B, STEEL	
E35	LSMZ0141	BALLAST BARRIER-A	⚠
E36	LSMZ0142	BALLAST BARRIER-B	⚠
E37	LSMZ0143	BALLAST BARRIER-C	⚠
E38	XTN3+4F	TAPPING SCREW, STEEL	
E39	XTV3+30J	TAPPING SCREW, STEEL	
E40	XYE3+FF6	SCREW W/WASHER, STEEL	
E56	XYC3+JF8	SCREW W/WASHER, STEEL	
E59	LSSC0167	FAN HEAT SINK	
E61	LSJA0166	GND CORD W/OUT PLUG	
E62	LSMA0266	INLET CASE, STEEL	
E63	LSTSSB5R015	HEAT SHRINKABLE TUBING	
E64	VJSS0164	FUSE HOLDER	
E65	XYN4+C6FN	SCREW W/WASHER, STEEL	
E66	LSMZ0171	INLET BARRIER	
E71	LSKF0163	JACK COVER	
E72	LSMA0264	I/O PLATE, STEEL	
E73	XTV3+8G	TAPPING SCREW, STEEL	
E74	LSMT0029	CUSHION, POLYURETANE+NYLON	
E75	LSMZ0160	JACK BARRIER	
E76	LSGU0057	CARD EJECT KNOB	
E77	LSJS0083	EJECTOR	
E78	XYN2+F8	SCREW W/WASHER, STEEL	
E79	LSMT0030	CUSHION, POLYURETANE+NYLON	
E80	LSMZ0167	CARD BARRIER	
E81	LSMX0097	CARD SPACER	
E82	LSSC0199	SHIELD SHEET-A	
E86	LSMT0027	CUSHION, POLYURETANE+NYLON	
E90	VEES0123	TEMPERATURE FUSE UNIT	
E91	VMTS0059	CUSHION, RUBBER	
E92	VMTS0035	CUSHION, RUBBER	

Service Manual

ViewSonic PJL802

Model No. VPRJ21408-1

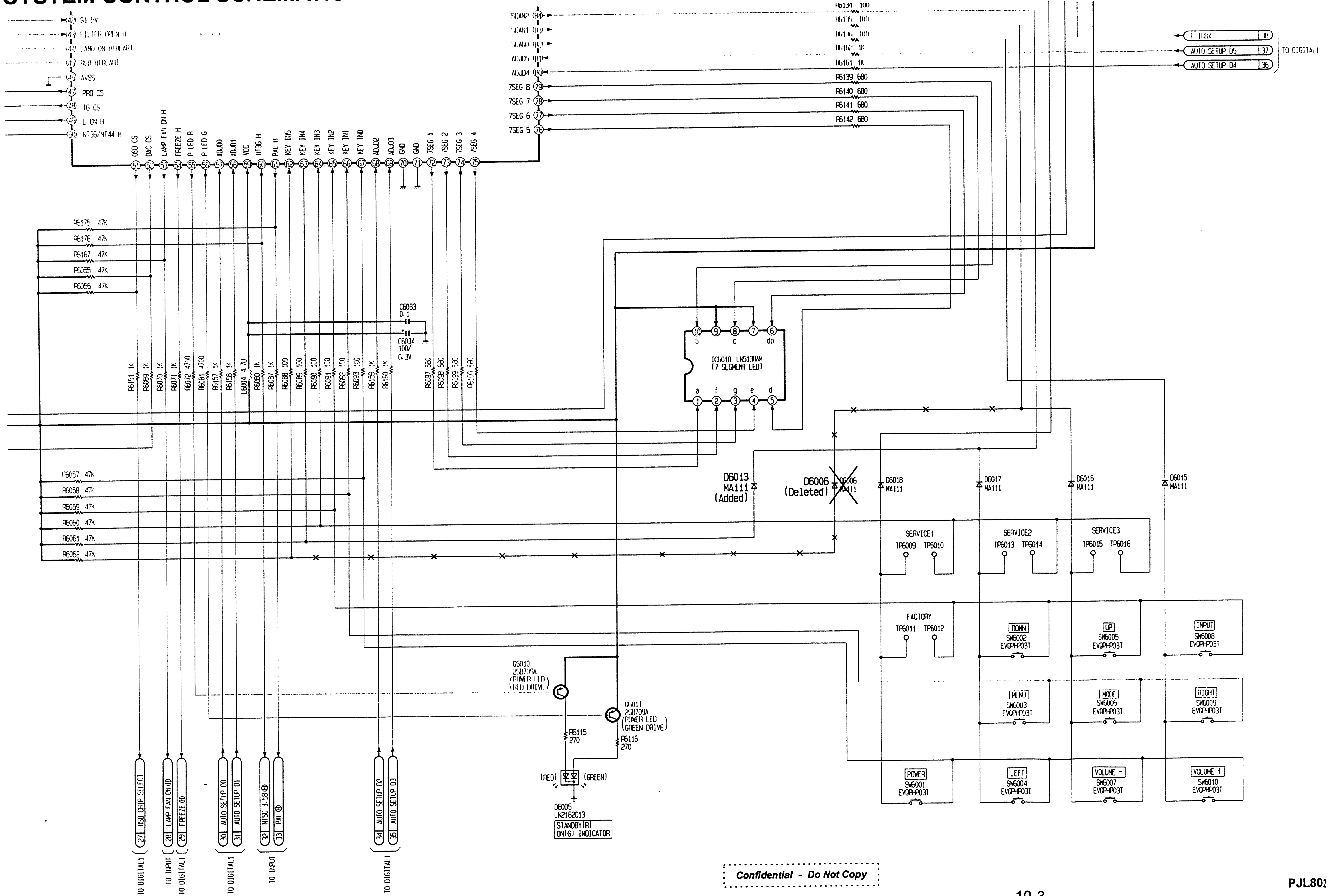
Engineering Change Supplement

Changes Affect:
- System Control Schematic
- Main Circuit Board
- Exploded Parts View - Chassis Frame Section
- Packing Parts and Accessories Section
- Parts List

VPRJ21408

Ref. No.	Model No.		Part Name	Remarks
	VPRJ21408			
1	LSYF0172		TOP COVER UNIT	
4	--------		FRONT IR PIECE	
5	LSYF0169		REAR IR PIECE UNIT	
9	LSYF0213		LAMP COVER UNIT	
11	LSMP0133		BOTTOM COVER	
36	LSKH0041		HANDLE	
41	LSYF0159		FILTER COVER UNIT	
67	LSQL0467		CAUTION LABEL TOP	
68	LSQL0452		CAUTION LABEL BOTTQM-A	
69	LSQL0458		CAUTION LABEL BOTTOM-B	
74	LSQL0461		CAUTION LABEL BOTTOM-C	
86	LSKF0172		VIDEO COVER	
91	LSGB0001		BADGE,AL	
101	LSPG0471		PACKING CASE,PAPER	
106	--------		FAN BAG	Supplied from ViewSonic
107	LRQ90019		INFRARED REMOTE CONTROL UNIT	
109	VJAS0188		AC CORD W/PLUG	
110	LSPG0491		PACKING SPACER	
113	LSJA0134		PC AUDIO COMMU CABLE W/PLUG	
131	LSFT0042		PRO-MOUSE DRIVER FD FOR WINDOWS 95	
132	LSFT0043		PRO-MOUSE DRIVER FD FOR WINDOWS 3.1	
133	LSFT0044		PRO-MOUSE DRIVER FD FOR MACINTOSH	
134	LSFT0045		JPEG CONVERTER FD FOR WINDOWS 95	
E1	LSEP0327C1		MAIN C.B.A.	
D6006	--------		DIODE CHIP	
D6013	MA111		DIODE CHIP	
E8	LSEP0322B1		JACK C.B.A.	
E71	LSKF0174		JACK COVER	

SYSTEM CONTROL SCHEMATIC DIAGRAM



42 S1 5V
43 FILTER OPEN H
44 LAMP ON H(REAR)
45 RGB H(REAR)
46 AVSS
47 PRO CS
48 TG CS
49 L ON H
50 NT36/NT44 H
51 OSD CS
52 DAC CS
53 LAMP FAN ON H
54 FREEZE H
55 P LED R
56 P LED G
57 ADJ00
58 ADJ01
59 VCC
60 NT36 H
61 PAL H
62 KEY IN5
63 KEY IN4
64 KEY IN3
65 KEY IN2
66 KEY IN1
67 KEY IN0
68 ADJ02
69 ADJ03
70 GND
71 GND
72 7SEG 1
73 7SEG 2
74 7SEG 3
75 7SEG 4
SCAN2 84
SCAN1 83
SCAN0 82
ADJ05 81
ADJ04 80
7SEG 8 79
7SEG 7 78
7SEG 6 77
7SEG 5 76
R6134 100
R6135 100
R6136 100
R6162 1K
R6161 1K
R6139 680
R6140 680
R6141 680
R6142 680
I INDX 38
AUTO SETUP D5 37
AUTO SETUP D4 36
TO DIGITAL1
R6175 47K
R6176 47K
R6167 47K
R6055 47K
R6056 47K
C6033 0.1
C6034 100/ 6.3V
R6151 1K
R6069 1K
R6070 1K
R6071 1K
R6072 4700
R6081 4700
R6157 1K
R6158 1K
L6004 4.7U
R6080 1K
R6087 1K
R6088 100
R6089 100
R6090 100
R6091 100
R6092 100
R6093 100
R6159 1K
R6150 1K
R6097 680
R6098 680
R6099 680
R6100 680
10 9 8 7 6
b c dp
IC6010 LN513RAM
(7 SEGMENT LED)
a f g e d
1 2 3 4 5
R6057 47K
R6058 47K
R6059 47K
R6060 47K
R6061 47K
R6062 47K
D6013
MA111
(Added)
D6006
(Deleted)
D6006
MA111
D6018
MA111
D6017
MA111
D6016
MA111
D6015
MA111
SERVICE1
TP6009 TP6010
SERVICE2
TP6013 TP6014
SERVICE3
TP6015 TP6016
FACTORY
TP6011 TP6012
DOWN
SW6002
EVQPHP03T
UP
SW6005
EVQPHP03T
INPUT
SW6008
EVQPHP03T
MENU
SW6003
EVQPHP03T
MODE
SW6006
EVQPHP03T
RIGHT
SW6009
EVQPHP03T
POWER
SW6001
EVQPHP03T
LEFT
SW6004
EVQPHP03T
VOLUME -
SW6007
EVQPHP03T
VOLUME +
SW6010
EVQPHP03T
Q6010
2SB709A
(POWER LED RED DRIVE)
Q6011
2SB709A
(POWER LED GREEN DRIVE)
R6115
270
R6116
270
(RED)
(GREEN)
D6005
LN2162C13
STANDBY(R)
ON(G) INDICATOR
27 OSD CHIP SELECT
28 LAMP FAN ON⊕
29 FREEZE ⊕
30 AUTO SETUP D0
31 AUTO SETUP D1
32 NTSC 3.58⊕
33 PAL ⊕
34 AUTO SETUP D2
35 AUTO SETUP D3
TO DIGITAL1
TO INPUT
TO DIGITAL1
TO DIGITAL1
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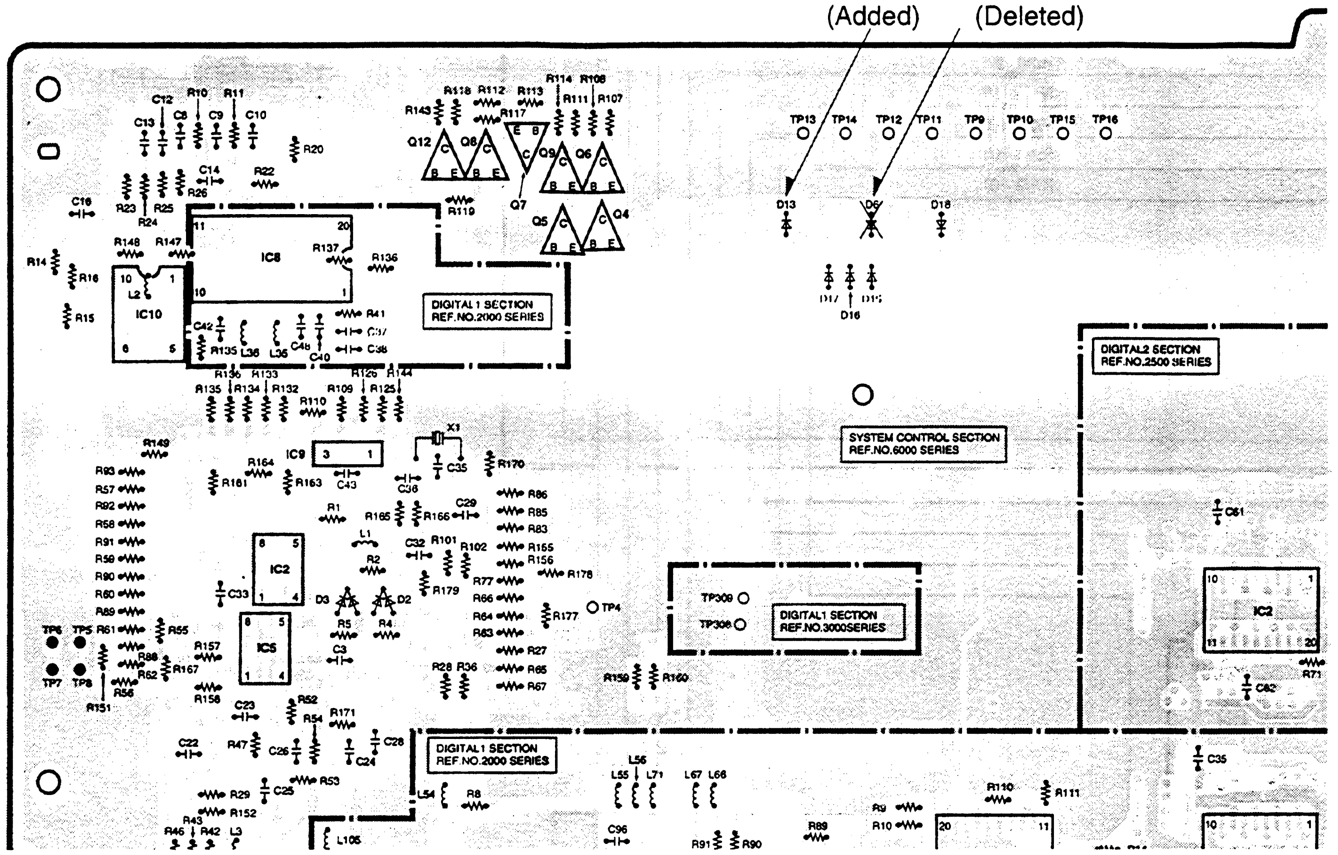
TO DIGITAL1

MAIN C.B.A. LSEP0327~~A1~~ C1

(FOIL SIDE)

D6013 (Added)

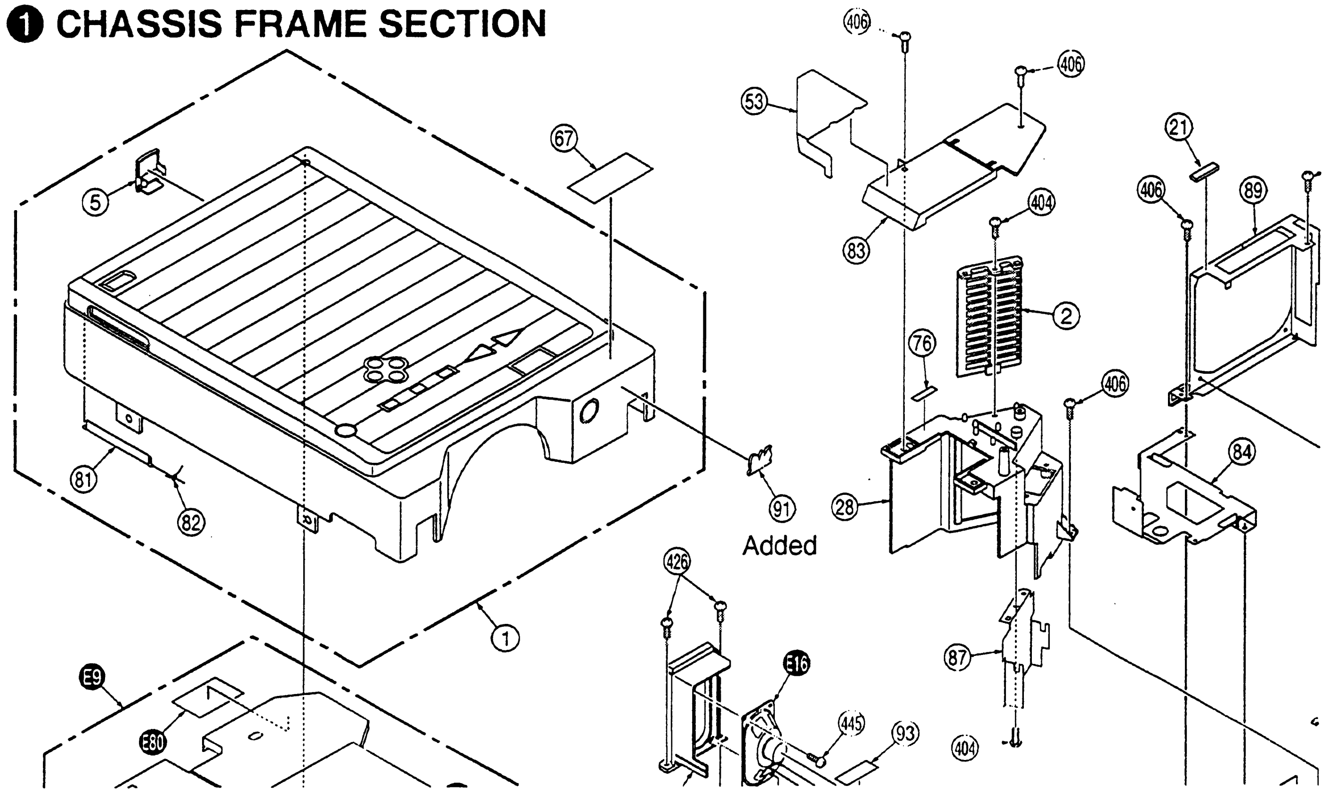
D6006 (Deleted)



IC8
IC10
IC9
IC2
IC5
X1
DIGITAL1 SECTION REF.NO.2000 SERIES
DIGITAL2 SECTION REF.NO.2500 SERIES
SYSTEM CONTROL SECTION REF.NO.6000 SERIES
DIGITAL1 SECTION REF.NO.3000SERIES
TP13 TP14 TP12 TP11 TP9 TP10 TP15 TP16
D13
D16
D18
TP309
TP308
TP4

EXPLODED VIEWS

❶ CHASSIS FRAME SECTION



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406
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426
87
E9
E60
E16
445
93
404

Added

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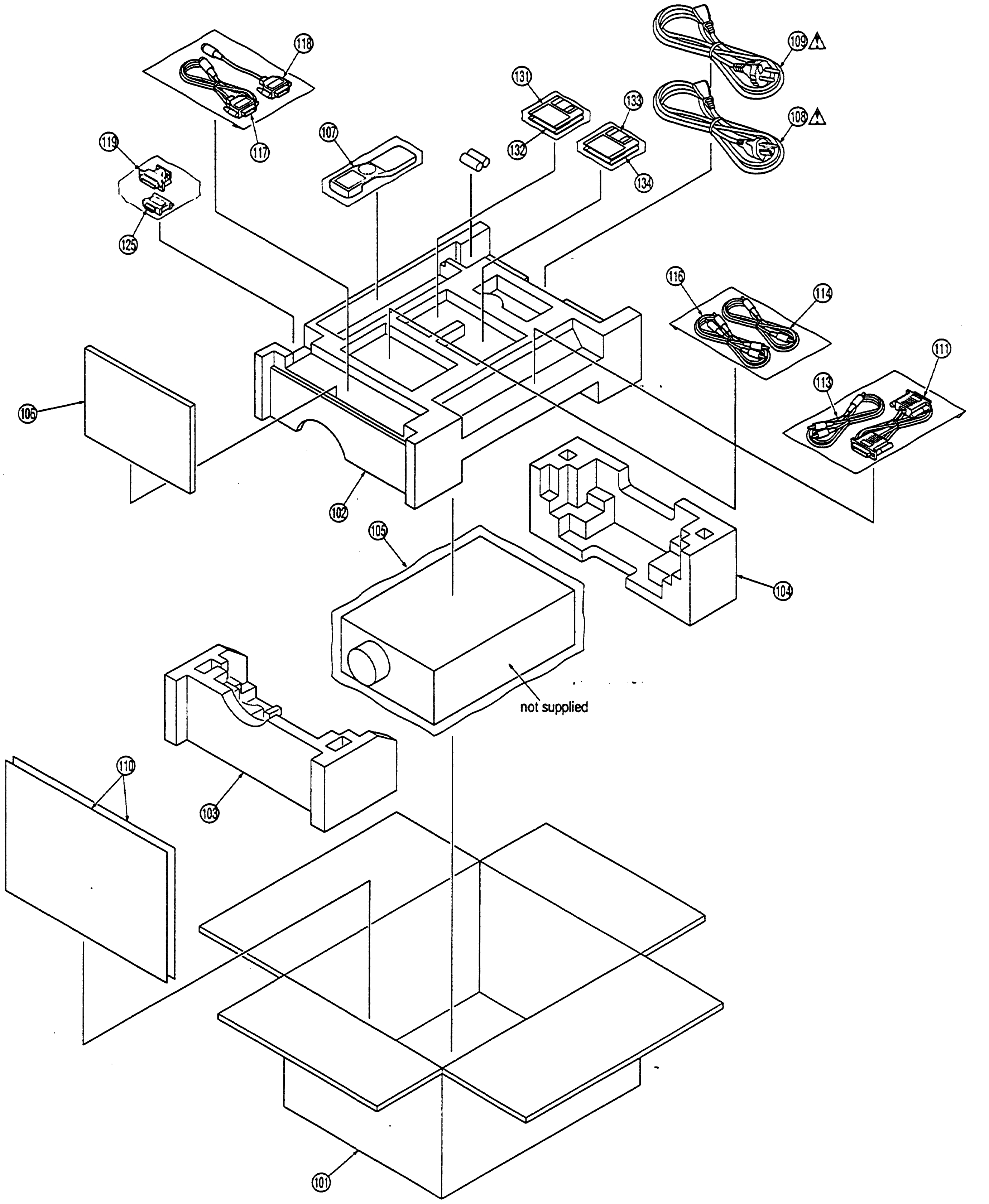
❹ PACKING PARTS AND ACCESSORIES SECTION

IMPORTANT SAFETY NOTICE:

COMPONENTS IDENTIFIED BY THE SIGN HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.



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